

Fig. 1A

Samples						
Sample ID	Src Name	Matched Normal sample Id	Disease Category	Tissue subcategory	Tissue Diagnosis	Whole exome sequencing (WES)
86336	HF-1327	87321	Colorectal Cancer		Adenocarcinoma	
94592	HF-17829-(2)	94591	Colorectal Cancer		Adenocarcinoma	
95504	HF-18430-(1)	95508	Colorectal Cancer		Adenocarcinoma	
95735	HF-18040-(1)	95739	Colorectal Cancer		Adenocarcinoma	
96115	HF-18138-(1)	96119	Colorectal Cancer		Adenocarcinoma	yes
96157	HF-18152-(1)	96161	Colorectal Cancer		Adenocarcinoma	yes
96391	HF-18172-(1)	96395	Colorectal Cancer		Adenocarcinoma	yes
96445	HF-18190-(1)	96449	Colorectal Cancer		Adenocarcinoma	yes
96562	HF-18454-(1)	96566	Colorectal Cancer		Adenocarcinoma	
96737	HF-18500-(1)	96741	Colorectal Cancer		Adenocarcinoma	yes
101763	HF-17944-(1)	101761	Colorectal Cancer		Adenocarcinoma	yes
94200	HF-17545-(1)	94190	Gastric Cancer		Adenocarcinoma Intestinal	
101592	HF-20325-(1)	101590	Gastric Cancer		Adenocarcinoma Intestinal	
86582	HF-15220-(1)	86927	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100695	HF-19917-(1)	100693	Non-Small Cell Lung Cancer		Adenocarcinoma	
86337	HF-1480	87322	Colorectal Cancer		Adenocarcinoma	
86337	HF-1480	87322	Colorectal Cancer		Adenocarcinoma	
86337	HF-1480	87322	Colorectal Cancer		Adenocarcinoma	
86341	HF-2468	87326	Colorectal Cancer		Adenocarcinoma	
86342	HF-2525	87327	Colorectal Cancer		Adenocarcinoma	
86343	HF-3446	87328	Colorectal Cancer		Adenocarcinoma	
86345	HF-3602	87330	Colorectal Cancer		Adenocarcinoma	
95147	HF-17899-(1)	95146	Colorectal Cancer		Adenocarcinoma	yes
95165	HF-17930-(1)	95164	Colorectal Cancer		Adenocarcinoma	yes
95356	HF-18263-(1)	95354	Colorectal Cancer		Adenocarcinoma	
95362	HF-18277-(1)	95360	Colorectal Cancer		Adenocarcinoma	yes
95374	HF-18295-(1)	95372	Colorectal Cancer		Adenocarcinoma	yes
95498	HF-18428-(1)	95502	Colorectal Cancer		Adenocarcinoma	yes
95669	HF-18026-(1)	95673	Colorectal Cancer		Adenocarcinoma	yes
95681	HF-18030-(1)	95685	Colorectal Cancer		Adenocarcinoma	yes
95687	HF-18032-(1)	95691	Colorectal Cancer		Adenocarcinoma	yes
95699	HF-18036-(1)	95703	Colorectal Cancer		Adenocarcinoma	yes
95729	HF-17998-(1)	95733	Colorectal Cancer		Adenocarcinoma	yes
95956	HF-18092-(1)	95960	Colorectal Cancer		Adenocarcinoma	
96121	HF-18140-(1)	96125	Colorectal Cancer		Adenocarcinoma	yes
96139	HF-18146-(1)	96143	Colorectal Cancer		Adenocarcinoma	
96145	HF-18148-(1)	96149	Colorectal Cancer		Adenocarcinoma	yes
96205	HF-18158-(1)	96209	Colorectal Cancer		Adenocarcinoma	
96496	HF-18198-(1)	96500	Colorectal Cancer		Adenocarcinoma	yes
96630	HF-18470-(1)	96634	Colorectal Cancer		Adenocarcinoma	yes
96654	HF-18478-(1)	96658	Colorectal Cancer		Adenocarcinoma	yes
96689	HF-18418-(1)	96693	Colorectal Cancer		Adenocarcinoma	yes

Fig. 1B

96689	HF-18418-(1)	96693	Colorectal Cancer		Adenocarcinoma	yes
96719	HF-18494-(1)	96723	Colorectal Cancer		Adenocarcinoma	yes
96725	HF-18496-(1)	96729	Colorectal Cancer		Adenocarcinoma	yes
96767	HF-18512-(1)	96771	Colorectal Cancer		Adenocarcinoma	yes
96876	HF-18550-(1)	96880	Colorectal Cancer		Adenocarcinoma	yes
96951	HF-18572-(1)	96955	Colorectal Cancer		Adenocarcinoma	yes
97041	HF-18596-(1)	97045	Colorectal Cancer		Adenocarcinoma	yes
97059	HF-18602-(1)	97063	Colorectal Cancer		Adenocarcinoma	yes
97075	HF-18604-(1)	97079	Colorectal Cancer		Adenocarcinoma	yes
97101	HF-18612-(1)	97105	Colorectal Cancer		Adenocarcinoma	yes
97458	HF-18301-(1)	97456	Colorectal Cancer		Adenocarcinoma	
97509	HF-17958-(1)	97507	Colorectal Cancer		Adenocarcinoma	yes
97672	HF-18319-(1)	97670	Colorectal Cancer		Adenocarcinoma	yes
97938	HF-18315-(1)	97936	Colorectal Cancer		Adenocarcinoma	yes
97944	HF-18359-(1)	97942	Colorectal Cancer		Adenocarcinoma	
97950	HF-18361-(1)	97948	Colorectal Cancer		Adenocarcinoma	
98491	HF-18824-(1)	98489	Colorectal Cancer		Adenocarcinoma	yes
101775	HF-18267-(1)	101773	Colorectal Cancer		Adenocarcinoma	yes
101787	HF-18281-(1)	101785	Colorectal Cancer		Adenocarcinoma	yes
101886	HF-20391-(1)	101884	Colorectal Cancer		Adenocarcinoma	yes
86339	HF-2400	87324	Colorectal Cancer		Adenocarcinoma	
86340	HF-2408	87325	Colorectal Cancer		Adenocarcinoma	
95149	HF-17903-(1)	95148	Colorectal Cancer		Adenocarcinoma	
95221	HF-17942-(1)	95219	Colorectal Cancer		Adenocarcinoma	
95462	HF-18339-(1)	95460	Colorectal Cancer		Adenocarcinoma	
95595	HF-18006-(1)	95599	Colorectal Cancer		Adenocarcinoma	
95705	HF-18038-(1)	95709	Colorectal Cancer		Adenocarcinoma	yes
95717	HF-17994-(1)	95721	Colorectal Cancer		Adenocarcinoma	yes
95753	HF-18046-(1)	95757	Colorectal Cancer		Adenocarcinoma	yes
95897	HF-18074-(1)	95901	Colorectal Cancer		Adenocarcinoma	yes
95909	HF-18078-(1)	95913	Colorectal Cancer		Adenocarcinoma	
96056	HF-18118-(1)	96060	Colorectal Cancer		Adenocarcinoma	
96241	HF-18170-(1)	96245	Colorectal Cancer		Adenocarcinoma	yes
96409	HF-18178-(1)	96413	Colorectal Cancer		Adenocarcinoma	
96502	HF-18434-(1)	96506	Colorectal Cancer		Adenocarcinoma	yes
96514	HF-18438-(1)	96518	Colorectal Cancer		Adenocarcinoma	
96618	HF-18466-(1)	96622	Colorectal Cancer		Adenocarcinoma	yes
96624	HF-18468-(1)	96628	Colorectal Cancer		Adenocarcinoma	yes
96672	HF-18484-(1)	96676	Colorectal Cancer		Adenocarcinoma	yes
96791	HF-18520-(1)	96795	Colorectal Cancer		Adenocarcinoma	yes
96810	HF-18528-(1)	96814	Colorectal Cancer		Adenocarcinoma	yes
96828	HF-18534-(1)	96832	Colorectal Cancer		Adenocarcinoma	yes
96894	HF-18556-(1)	96898	Colorectal Cancer		Adenocarcinoma	yes
96918	HF-18564-(1)	96922	Colorectal Cancer		Adenocarcinoma	yes
96945	HF-18570-(1)	96949	Colorectal Cancer		Adenocarcinoma	yes
96963	HF-18576-(1)	96967	Colorectal Cancer		Adenocarcinoma	
96969	HF-18578-(1)	96973	Colorectal Cancer		Adenocarcinoma	yes
97005	HF-18504-(1)	97009	Colorectal Cancer		Adenocarcinoma	yes

Fig. 1C

97047	HF-18598-(1)	97051	Colorectal Cancer		Adenocarcinoma	yes
97053	HF-18600-(1)	97057	Colorectal Cancer		Adenocarcinoma Mucinous	yes
97636	HF-17909-(1)	97634	Colorectal Cancer		Adenocarcinoma	yes
97932	HF-18285-(1)	97930	Colorectal Cancer		Adenocarcinoma	yes
97968	HF-18796-(1)	97966	Colorectal Cancer		Adenocarcinoma	yes
98083	HF-18253-(1)	98079	Colorectal Cancer		Adenocarcinoma	
98107	HF-18323-(1)	98103	Colorectal Cancer		Adenocarcinoma	yes
98123	HF-18327-(1)	98119	Colorectal Cancer		Adenocarcinoma	yes
98473	HF-18818-(1)	98471	Colorectal Cancer		Adenocarcinoma	yes
101904	HF-20397-(1)	101902	Colorectal Cancer		Adenocarcinoma	yes
101910	HF-20399-(1)	101908	Colorectal Cancer		Adenocarcinoma	
101922	HF-20403-(1)	101920	Colorectal Cancer		Adenocarcinoma	yes
101988	HF-20385-(1)	101986	Colorectal Cancer		Adenocarcinoma	yes
103183	HF-20411-(1)	103181	Colorectal Cancer		Adenocarcinoma	yes
88024	HF-7083-(1)	88023	Esophageal Cancer		Adenocarcinoma	
88026	HF-7969-(1)	88025	Esophageal Cancer		Adenocarcinoma	
88028	HF-8020-(1)	88027	Esophageal Cancer		Adenocarcinoma	
88173	HF-9229-(1)	88172	Esophageal Cancer		Adenocarcinoma	
88175	HF-16285-(1)	88174	Esophageal Cancer		Carcinoma Squamous Cell	
94018	HF-6467-(1)	94017	Esophageal Cancer		Adenocarcinoma	
94020	HF-6966-(1)	94019	Esophageal Cancer		Adenocarcinoma	
94021	HF-7046-(1)	94022	Esophageal Cancer		Adenocarcinoma	
94024	HF-7063-(1)	94023	Esophageal Cancer		Adenocarcinoma	
98623	HF-17232-(1)	98626	Esophageal Cancer		Adenocarcinoma	
98646	HF-18367-(1)	98644	Esophageal Cancer		Carcinoma	
99093	HF-19089-(1)	99091	Esophageal Cancer		Carcinoma	
100663	HF-19429-(1)	100667	Esophageal Cancer		Carcinoma	
101450	HF-20081-(1)	101448	Esophageal Cancer		Carcinoma Squamous Cell	
101474	HF-20333-(1)	101472	Esophageal Cancer		Carcinoma Squamous Cell	
92180	HF-17152-(1)	92188	Gastric Cancer		Adenocarcinoma Diffuse	
94203	HF-17546-(1)	94191	Gastric Cancer		Adenocarcinoma Intestinal	
94383	HF-17266-(1)	94386	Gastric Cancer		Adenocarcinoma Intestinal	
94420	HF-17579-(1)	94419	Gastric Cancer		Adenocarcinoma Intestinal	
94432	HF-17699-(1)	94431	Gastric Cancer		Adenocarcinoma Intestinal	
94472	HF-17566-(1)	94471	Gastric Cancer		Adenocarcinoma Intestinal	
98433	HF-18840-(1)	98431	Gastric Cancer		Adenocarcinoma Intestinal	
98439	HF-18842-(1)	98437	Gastric Cancer		Adenocarcinoma Intestinal	
98982	HF-19113-(1)	98980	Gastric Cancer		Adenocarcinoma Intestinal	
101574	HF-20319-(1)	101572	Gastric Cancer		Adenocarcinoma Intestinal	
101598	HF-20327-(1)	101596	Gastric Cancer		Adenocarcinoma Intestinal	
92175	HF-17145-(1)	92184	Gastric Cancer		Adenocarcinoma Diffuse	
92192	HF-17240-(1)	92193	Gastric Cancer		Adenocarcinoma Diffuse	
94218	HF-17551-(1)	94196	Gastric Cancer		Adenocarcinoma Intestinal	
94227	HF-17554-(1)	94199	Gastric Cancer		Adenocarcinoma Diffuse	
94263	HF-17159-(1)	94266	Gastric Cancer		Adenocarcinoma Diffuse	
94303	HF-17188-(1)	94306	Gastric Cancer		Adenocarcinoma Diffuse	
94307	HF-17189-(1)	94310	Gastric Cancer		Adenocarcinoma Diffuse	
94315	HF-17197-(1)	94318	Gastric Cancer		Adenocarcinoma Diffuse	

Fig. 1D

97696	HF-18844-(1)	97694	Gastric Cancer		Adenocarcinoma Intestinal	
97708	HF-18848-(1)	97706	Gastric Cancer		Adenocarcinoma Intestinal	
97714	HF-18850-(1)	97712	Gastric Cancer		Adenocarcinoma Intestinal	
98204	HF-17945-(1)	98208	Gastric Cancer		Adenocarcinoma Intestinal	
98248	HF-18377-(1)	98246	Gastric Cancer		Adenocarcinoma Diffuse	
98409	HF-18832-(1)	98407	Gastric Cancer		Adenocarcinoma Diffuse	
98427	HF-18838-(1)	98425	Gastric Cancer		Adenocarcinoma Diffuse	
98964	HF-19107-(1)	98962	Gastric Cancer		Adenocarcinoma Intestinal	
99935	HF-19354-(1)	99939	Gastric Cancer		Adenocarcinoma Diffuse	
100003	HF-20021-(1)	100001	Gastric Cancer		Adenocarcinoma Diffuse	
100543	HF-19412-(1)	100547	Gastric Cancer		Adenocarcinoma Intestinal	
100549	HF-19437-(1)	100553	Gastric Cancer		Adenocarcinoma Intestinal	
91925	HF-17225-(1)	91928	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
88167	HF-16443	88168	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
88170	HF-16920	88169	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
89942	HF-17078-(1)	91910	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
91913	HF-17079-(1)	91916	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
91919	HF-17224-(1)	91922	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
91931	HF-17229-(1)	91934	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
91937	HF-17268-(1)	91940	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
98747	HF-17493-(1)	98746	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
98751	HF-17499-(1)	98750	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
98755	HF-17592-(1)	98754	Hepatocellular Carcinoma		Carcinoma Hepatocellular	
86795	HF-15545-(1)	87704	Lung Cancer, Other		Carcinoma Neuroendocrine	
88122	HF-16884	88121	Melanoma		Melanoma	
88124	HF-16888	88123	Melanoma		Melanoma	
88126	HF-16890	88125	Melanoma		Melanoma	
88128	HF-16892	88127	Melanoma		Melanoma	
91780	HF-16922-(1)	91779	Melanoma		Melanoma	
91816	HF-17686-(1)	91815	Melanoma		Melanoma	
91818	HF-17687-(1)	91817	Melanoma		Melanoma	
91820	HF-17688-(1)	91819	Melanoma		Melanoma	
91822	HF-17689-(1)	97144	Melanoma		Melanoma	
91824	HF-17690-(1)	91823	Melanoma		Melanoma	
95283	HF-18230-(1)	95286	Melanoma		Melanoma	
95288	HF-18233-(1)	95291	Melanoma		Melanoma	
97775	HF-18686-(1)	97779	Melanoma		Melanoma	
97781	HF-18689-(1)	97785	Melanoma		Melanoma	
97805	HF-18719-(1)	97809	Melanoma		Melanoma	
97856	HF-18787-(1)	97848	Melanoma		Melanoma	
97864	HF-18789-(1)	97852	Melanoma		Melanoma	
97868	HF-18790-(1)	97854	Melanoma		Melanoma	
97884	HF-18882-(1)	97888	Melanoma		Melanoma	
97890	HF-18884-(1)	97894	Melanoma		Melanoma	
97896	HF-18886-(1)	97900	Melanoma		Melanoma	
99878	HF-19011-(1)	99882	Melanoma		Melanoma	
101504	HF-20337-(1)	101502	Melanoma		Melanoma	
101516	HF-20341-(1)	101514	Melanoma		Melanoma	

Fig. 1E

88130	HF-16894	88129	Melanoma		Melanoma	
88131	HF-16873	88132	Melanoma		Melanoma	
91812	HF-17684-(1)	91811	Melanoma		Melanoma	
91826	HF-17691-(1)	91825	Melanoma		Melanoma	
95305	HF-18385-(1)	108057	Melanoma		Melanoma	
97793	HF-18713-(1)	97797	Melanoma		Melanoma	
97844	HF-18782-(1)	97842	Melanoma		Melanoma	
97860	HF-18788-(1)	97850	Melanoma		Melanoma	
99125	HF-19099-(1)	99123	Melanoma		Melanoma	
99852	HF-18692-(1)	99855	Melanoma		Melanoma	
99871	HF-19008-(1)	99875	Melanoma		Melanoma	
101486	HF-20013-(1)	101484	Melanoma		Melanoma	
101498	HF-20335-(1)	101496	Melanoma		Melanoma	
86318	HF-11765	87234	Non-Small Cell Lung Cancer		Adenocarcinoma	
86327	HF-11754	87229	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
86501	HF-11731	87221	Non-Small Cell Lung Cancer		Adenocarcinoma	
86503	HF-11734	87223	Non-Small Cell Lung Cancer		Adenocarcinoma	
86506	HF-11743	87226	Non-Small Cell Lung Cancer		Adenocarcinoma	
86507	HF-11744	87694	Non-Small Cell Lung Cancer		Adenocarcinoma	
86507	HF-11744	87694	Non-Small Cell Lung Cancer		Adenocarcinoma	
86507	HF-11744	87694	Non-Small Cell Lung Cancer		Adenocarcinoma	
86564	HF-4810-(1)	86858	Non-Small Cell Lung Cancer		Adenocarcinoma	
86570	HF-3711-(1)	86855	Non-Small Cell Lung Cancer		Adenocarcinoma	
86578	HF-8025	87238	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86583	HF-15224-(1)	86928	Non-Small Cell Lung Cancer		Adenocarcinoma	
86748	HF-15355-(1)	87236	Non-Small Cell Lung Cancer		Adenocarcinoma	
86751	HF-11757-(2)	87695	Non-Small Cell Lung Cancer		Adenocarcinoma	
86770	HF-15217	86925	Non-Small Cell Lung Cancer		Adenocarcinoma	
86775	HF-15515-(1)	87405	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86783	HF-15533-(1)	87415	Non-Small Cell Lung Cancer		Adenocarcinoma	
86786	HF-15539-(1)	87418	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86789	HF-15567-(1)	87428	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
86790	HF-15570-(1)	87429	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86792	HF-15505-(1)	87430	Non-Small Cell Lung Cancer		Adenocarcinoma	
86796	HF-15546-(1)	87421	Non-Small Cell Lung Cancer		Adenocarcinoma	
86796	HF-15546-(1)	87421	Non-Small Cell Lung Cancer		Adenocarcinoma	
86796	HF-15546-(1)	87421	Non-Small Cell Lung Cancer		Adenocarcinoma	
86798	HF-15549-(1)	87423	Non-Small Cell Lung Cancer		Adenocarcinoma	

Fig. 1F

86316	HF-11756	87230	Non-Small Cell Lung Cancer		Adenocarcinoma	
86319	HF-11766	87696	Non-Small Cell Lung Cancer		Adenocarcinoma	
86320	HF-11770	86842	Non-Small Cell Lung Cancer		Adenocarcinoma	
86321	HF-11772	86844	Non-Small Cell Lung Cancer		Adenocarcinoma	
86322	HF-11776	86846	Non-Small Cell Lung Cancer		Adenocarcinoma	
86324	HF-11782	86848	Non-Small Cell Lung Cancer		Adenocarcinoma	
86325	HF-11751	87227	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86326	HF-11752	87228	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86328	HF-11758	87231	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86329	HF-11763	87233	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86330	HF-11767	87235	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
86331	HF-11771	86843	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86332	HF-11780	86847	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
86333	HF-11783	86849	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
86334	HF-11785	86850	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86502	HF-11732	87222	Non-Small Cell Lung Cancer		Adenocarcinoma	
86504	HF-11737	87224	Non-Small Cell Lung Cancer		Adenocarcinoma	
86505	HF-11739	87225	Non-Small Cell Lung Cancer		Adenocarcinoma	
86563	HF-3043-(1)	86852	Non-Small Cell Lung Cancer		Adenocarcinoma	
86565	HF-5158-(1)	86859	Non-Small Cell Lung Cancer		Adenocarcinoma	
86566	HF-8890-(1)	86862	Non-Small Cell Lung Cancer		Adenocarcinoma	
86567	HF-9390-(1)	86864	Non-Small Cell Lung Cancer		Adenocarcinoma	
86568	HF-3703-(1)	86853	Non-Small Cell Lung Cancer		Adenocarcinoma	
86569	HF-3705-(1)	86854	Non-Small Cell Lung Cancer		Adenocarcinoma	
86571	HF-3718-(1)	86856	Non-Small Cell Lung Cancer		Adenocarcinoma	
86572	HF-4527-(1)	86857	Non-Small Cell Lung Cancer		Adenocarcinoma	
86576	HF-5171	86860	Non-Small Cell Lung Cancer		Adenocarcinoma	
86579	HF-15212-(1)	86922	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86580	HF-15215-(1)	86924	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86581	HF-15218-(1)	86926	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86584	HF-15227-(1)	86929	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86586	HF-15231-(1)	86932	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86587	HF-15233-(1)	86933	Non-Small Cell Lung Cancer		Adenocarcinoma	
86590	HF-15237-(1)	86934	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	

Fig. 1G

86591	HF-15240-(1)	86935	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86752	HF-11769-(2)	87697	Non-Small Cell Lung Cancer		Adenocarcinoma	
86753	HF-11775-(2)	86845	Non-Small Cell Lung Cancer		Adenocarcinoma	
86769	HF-15213	86923	Non-Small Cell Lung Cancer		Adenocarcinoma	
86771	HF-15228	86930	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86772	HF-15506-(1)	87402	Non-Small Cell Lung Cancer		Adenocarcinoma	
86773	HF-15511-(1)	87403	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86774	HF-15512-(1)	87404	Non-Small Cell Lung Cancer		Adenocarcinoma Mucinous	
86776	HF-15516-(1)	87406	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86782	HF-15527-(1)	87414	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86784	HF-15534-(1)	87416	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86785	HF-15535-(1)	87417	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86791	HF-15541-(1)	87419	Non-Small Cell Lung Cancer		Adenocarcinoma	
86794	HF-15523-(1)	87411	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86797	HF-15547-(1)	87422	Non-Small Cell Lung Cancer		Adenocarcinoma	
86799	HF-15558-(1)	87424	Non-Small Cell Lung Cancer		Adenocarcinoma	
86800	HF-15559-(1)	87425	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86801	HF-15560-(1)	87426	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86802	HF-15561-(1)	87427	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86803	HF-15563-(1)	87705	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86835	HF-15576-(1)	97838	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86839	HF-15598-(1)	87699	Non-Small Cell Lung Cancer		Adenocarcinoma	
86778	HF-15521-(1)	87409	Non-Small Cell Lung Cancer		Adenocarcinoma	
86779	HF-15522-(1)	87410	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
94671	HF-15894-(1)	106531	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
94699	HF-15901-(1)	106533	Non-Small Cell Lung Cancer		Adenocarcinoma	
94795	HF-15928-(1)	106537	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
98019	HF-15878-(1)	106529	Non-Small Cell Lung Cancer		Adenocarcinoma	
98860	HF-18620-(1)	98864	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
98896	HF-18632-(1)	98900	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
100615	HF-19424-(1)	100619	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100627	HF-19441-(1)	100631	Non-Small Cell Lung Cancer		Adenocarcinoma	
100641	HF-19967-(1)	100639	Non-Small Cell Lung Cancer		Adenocarcinoma	
101043	HF-20009-(1)	101041	Non-Small Cell Lung Cancer		Carcinoma Large Cell	

Fig. 1H

101213	HF-20138-(1)	101217	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
101286	HF-20122-(1)	101290	Non-Small Cell Lung Cancer		Adenocarcinoma	
101359	HF-20166-(1)	101363	Non-Small Cell Lung Cancer		Adenocarcinoma	
101384	HF-20174-(1)	101388	Non-Small Cell Lung Cancer		Adenocarcinoma	
101668	HF-20305-(1)	101666	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
103001	HF-20502-(1)	103005	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86323	HF-11779	105597	Non-Small Cell Lung Cancer		Adenocarcinoma	
86575	HF-2130	86851	Non-Small Cell Lung Cancer		Adenocarcinoma	
86585	HF-15230-(1)	86931	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86588	HF-15234-(1)	87698	Non-Small Cell Lung Cancer		Adenocarcinoma	
86749	HF-15358-(1)	87237	Non-Small Cell Lung Cancer		Adenocarcinoma Bronchioloalveolar	
86777	HF-15520-(1)	87408	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86780	HF-15525-(1)	87412	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86781	HF-15526-(1)	87413	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86787	HF-15540-(1)	87703	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
86788	HF-15542-(1)	87420	Non-Small Cell Lung Cancer		Adenocarcinoma	
86793	HF-15519-(1)	87407	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
87967	HF-15503-(1)	87968	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
87969	HF-15487-(1)	87970	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
87971	HF-15479-(1)	87972	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
88177	HF-16076-(1)	88176	Non-Small Cell Lung Cancer		Other	
89960	HF-15476-(1)	89958	Non-Small Cell Lung Cancer		Adenocarcinoma	
94675	HF-15895-(1)	106532	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
94759	HF-15854-(1)	106541	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
98004	HF-15912-(1)	106535	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
98007	HF-15913-(1)	106536	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
98010	HF-15850-(1)	106528	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
98681	HF-18664-(1)	98685	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
98850	HF-18407-(1)	98848	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
98884	HF-18628-(1)	98888	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
99277	HF-18639-(1)	99273	Non-Small Cell Lung Cancer		Other	
99283	HF-18643-(1)	99281	Non-Small Cell Lung Cancer		Other	
99319	HF-18655-(1)	99311	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100635	HF-19913-(1)	100633	Non-Small Cell Lung Cancer		Adenocarcinoma	

Fig. 1l

100683	HF-19911-(1)	100681	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100701	HF-19919-(1)	100699	Non-Small Cell Lung Cancer		Adenocarcinoma	
100739	HF-19931-(1)	100737	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100751	HF-19935-(1)	100749	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100783	HF-19945-(1)	100781	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100789	HF-19947-(1)	100787	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100831	HF-19953-(1)	100829	Non-Small Cell Lung Cancer		Adenocarcinoma	
100837	HF-19955-(1)	100835	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
100849	HF-19959-(1)	100847	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100867	HF-19965-(1)	100865	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100879	HF-19973-(1)	100877	Non-Small Cell Lung Cancer		Adenocarcinoma	
100918	HF-19977-(1)	100916	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
100960	HF-19991-(1)	100958	Non-Small Cell Lung Cancer		Adenocarcinoma	
101007	HF-19995-(1)	101005	Non-Small Cell Lung Cancer		Adenocarcinoma Mucinous	
101037	HF-20007-(1)	101035	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
101119	HF-19907-(1)	101117	Non-Small Cell Lung Cancer		Adenocarcinoma	
101125	HF-20005-(1)	101123	Non-Small Cell Lung Cancer		Adenocarcinoma	
101189	HF-20130-(1)	101193	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
101201	HF-20134-(1)	101205	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
101225	HF-20142-(1)	101229	Non-Small Cell Lung Cancer		Adenocarcinoma	
101317	HF-20152-(1)	101321	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
101335	HF-20158-(1)	101339	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
101704	HF-20317-(1)	101702	Non-Small Cell Lung Cancer		Adenocarcinoma	
101714	HF-20348-(1)	101718	Non-Small Cell Lung Cancer		Adenocarcinoma	
102004	HF-16447-(1)	102008	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
103044	HF-20520-(1)	103048	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
103082	HF-20516-(1)	103086	Non-Small Cell Lung Cancer		Carcinoma Large Cell	
103591	HF-20701-(1)	103590	Non-Small Cell Lung Cancer		Adenocarcinoma	
103599	HF-20705-(1)	103598	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
103603	HF-20707-(1)	103602	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
103645	HF-20697-(1)	103643	Non-Small Cell Lung Cancer		Adenocarcinoma	
103651	HF-20699-(1)	103649	Non-Small Cell Lung Cancer		Carcinoma Squamous Cell	
90563	HF-17060-(1)	90566	Ovarian Cancer		Adenocarcinoma Endometrioid	
92119	HF-16150-(1)	92118	Ovarian Cancer		Adenocarcinoma Serous	
92124	HF-16277-(1)	92122	Ovarian Cancer		Adenocarcinoma Serous	

Fig. 1J

98164	HF-18393-(1)	98162	Ovarian Cancer		Adenocarcinoma	
98598	HF-18770-(1)	98596	Ovarian Cancer		Adenocarcinoma Serous	
88013	HF-16897-(1)	88014	Ovarian Cancer		Adenocarcinoma Endometrioid	
88015	HF-16899-(1)	88019	Ovarian Cancer		Adenocarcinoma Serous	
88016	HF-16901-(1)	88020	Ovarian Cancer		Adenocarcinoma Serous	
88017	HF-16902-(1)	88021	Ovarian Cancer		Adenocarcinoma Endometrioid	
88018	HF-16903-(1)	88022	Ovarian Cancer		Adenocarcinoma Serous	
90528	HF-17525-(1)	90527	Ovarian Cancer		Adenocarcinoma Serous	
90540	HF-17528-(1)	90539	Ovarian Cancer		Adenocarcinoma Serous	
90552	HF-17531-(1)	90551	Ovarian Cancer		Adenocarcinoma Endometrioid	
90574	HF-17532-(1)	90571	Ovarian Cancer		Adenocarcinoma Endometrioid	
92121	HF-16154-(1)	92120	Ovarian Cancer		Adenocarcinoma Serous	
92125	HF-16280-(1)	92123	Ovarian Cancer		Adenocarcinoma Serous	
92439	HF-17778-(1)	92440	Ovarian Cancer		Adenocarcinoma Serous	
92441	HF-17780-(1)	92442	Ovarian Cancer		Adenocarcinoma Serous	
92445	HF-17786-(1)	92446	Ovarian Cancer		Adenocarcinoma Serous	
92447	HF-17788-(1)	92448	Ovarian Cancer		Adenocarcinoma Serous	
98170	HF-18395-(1)	98168	Ovarian Cancer		Adenocarcinoma Serous	
98188	HF-18401-(1)	98186	Ovarian Cancer		Adenocarcinoma Serous	
98200	HF-18405-(1)	98198	Ovarian Cancer		Adenocarcinoma Serous	
98561	HF-17782-(1)	98564	Ovarian Cancer		Adenocarcinoma Serous	
98586	HF-18389-(1)	98584	Ovarian Cancer		Adenocarcinoma Serous	
98610	HF-18774-(1)	98608	Ovarian Cancer		Adenocarcinoma Papillary Serous	
99024	HF-19073-(1)	99022	Ovarian Cancer		Adenocarcinoma Serous	
99048	HF-19081-(1)	99046	Ovarian Cancer		Adenocarcinoma Serous	
99054	HF-19083-(1)	99052	Ovarian Cancer		Adenocarcinoma Serous	
100799	HF-19319-(1)	100803	Ovarian Cancer		Adenocarcinoma Serous	
100811	HF-19328-(1)	100815	Ovarian Cancer		Adenocarcinoma Serous	
100817	HF-19330-(1)	100821	Ovarian Cancer		Adenocarcinoma Serous	
88181	HF-16365-(1)	90270	Pancreatic Cancer		Adenocarcinoma	
87862	HF-3087-(1)	87861	Renal Cell Carcinoma		Carcinoma Renal Cell	
100434	HF-19435-(1)	100438	Renal Cell Carcinoma		Carcinoma Renal Cell	
100494	HF-20041-(1)	100492	Renal Cell Carcinoma		Carcinoma Renal Cell	
86367	HF-2179-(1)	90236	Renal Cell Carcinoma		Carcinoma Renal Cell	
86368	HF-3058-(1)	90237	Renal Cell Carcinoma		Carcinoma Renal Cell	
86369	HF-3455-(1)	90238	Renal Cell Carcinoma		Carcinoma Renal Cell	
87860	HF-3081-(1)	87859	Renal Cell Carcinoma		Carcinoma Renal Cell	
87864	HF-7279-(1)	87863	Renal Cell Carcinoma		Carcinoma Renal Cell	
87870	HF-7997-(1)	87869	Renal Cell Carcinoma		Carcinoma Renal Cell	
87876	HF-9227-(1)	87875	Renal Cell Carcinoma		Carcinoma Renal Cell	
87977	HF-4328-(1)	87978	Renal Cell Carcinoma		Carcinoma Renal Cell	
87979	HF-4336-(1)	87980	Renal Cell Carcinoma		Carcinoma Renal Cell	
87987	HF-9479-(1)	87990	Renal Cell Carcinoma		Carcinoma Renal Cell	
89943	HF-8979-(2)	87877	Renal Cell Carcinoma		Carcinoma Renal Cell	
89944	HF-9159-(2)	87873	Renal Cell Carcinoma		Carcinoma Renal Cell	
90142	HF-6445-(1)	90139	Renal Cell Carcinoma		Carcinoma Renal Cell	
90160	HF-7010-(1)	90157	Renal Cell Carcinoma		Carcinoma Renal Cell	
90212	HF-8988-(2)	90210	Renal Cell Carcinoma		Carcinoma Renal Cell	

Fig. 1K

100388	HF-19301-(1)	100392	Renal Cell Carcinoma		Carcinoma Renal Cell	
100394	HF-19303-(1)	100398	Renal Cell Carcinoma		Carcinoma Renal Cell	
100400	HF-19305-(1)	100404	Renal Cell Carcinoma		Carcinoma Renal Cell	
100412	HF-19311-(1)	100416	Renal Cell Carcinoma		Carcinoma Renal Cell	
100428	HF-19317-(1)	100432	Renal Cell Carcinoma		Carcinoma Renal Cell	
100446	HF-20025-(1)	100445	Renal Cell Carcinoma		Carcinoma Renal Cell	
100452	HF-20027-(1)	100450	Renal Cell Carcinoma		Carcinoma Renal Cell	
100458	HF-20029-(1)	100456	Renal Cell Carcinoma		Carcinoma Renal Cell	
100563	HF-20069-(1)	100561	Renal Cell Carcinoma		Carcinoma Renal Cell	
100569	HF-20071-(1)	100567	Renal Cell Carcinoma		Carcinoma Renal Cell	
100575	HF-20073-(1)	100573	Renal Cell Carcinoma		Carcinoma Renal Cell	
100581	HF-20075-(1)	100579	Renal Cell Carcinoma		Carcinoma Renal Cell	
100587	HF-20077-(1)	100585	Renal Cell Carcinoma		Carcinoma Renal Cell	
100593	HF-20079-(1)	100591	Renal Cell Carcinoma		Carcinoma Renal Cell	
102061	HF-20053-(1)	102048	Renal Cell Carcinoma		Carcinoma Renal Cell	
102095	HF-20061-(2)	102055	Renal Cell Carcinoma		Carcinoma Renal Cell	
102321	HF-20426-(1)	102325	Renal Cell Carcinoma		Carcinoma Renal Cell	
102333	HF-20430-(1)	102337	Renal Cell Carcinoma		Carcinoma Renal Cell	
102396	HF-20438-(1)	102400	Renal Cell Carcinoma		Carcinoma Renal Cell	
102402	HF-20441-(1)	102406	Renal Cell Carcinoma		Carcinoma Renal Cell	
102408	HF-20444-(1)	102426	Renal Cell Carcinoma		Carcinoma Renal Cell	
102743	HF-20462-(1)	102747	Renal Cell Carcinoma		Carcinoma Renal Cell	
102749	HF-20466-(1)	102753	Renal Cell Carcinoma		Carcinoma Renal Cell	
102773	HF-20490-(1)	102777	Renal Cell Carcinoma		Carcinoma Renal Cell	
102785	HF-20494-(1)	102789	Renal Cell Carcinoma		Carcinoma Renal Cell	
102828	HF-20472-(1)	102832	Renal Cell Carcinoma		Carcinoma Renal Cell	
102864	HF-20486-(1)	102868	Renal Cell Carcinoma		Carcinoma Renal Cell	
86457	HF-9739	87805	Small Cell Lung Cancer		Carcinoma Small Cell	
98687	HF-18666-(1)	98691	Small Cell Lung Cancer		Carcinoma Small Cell	
86448	HF-8740	87804	Small Cell Lung Cancer		Carcinoma Small Cell	
98711	HF-18694-(1)	98715	Small Cell Lung Cancer		Carcinoma Small Cell	
98717	HF-18696-(1)	98721	Small Cell Lung Cancer		Carcinoma Small Cell	
98735	HF-18702-(1)	98739	Small Cell Lung Cancer		Carcinoma Small Cell	
98741	HF-18704-(1)	98745	Small Cell Lung Cancer		Carcinoma Small Cell	
98759	HF-17693-(1)	98758	Small Cell Lung Cancer		Carcinoma Small Cell	
101626	HF-20291-(1)	101624	Small Cell Lung Cancer		Carcinoma Small Cell	
101644	HF-20297-(1)	101642	Small Cell Lung Cancer		Carcinoma Small Cell	
101650	HF-20299-(1)	101648	Small Cell Lung Cancer		Carcinoma Small Cell	
103639	HF-20695-(1)	103637	Small Cell Lung Cancer		Carcinoma Small Cell	
94128	HF-17075-(1)	94130	Gastric Cancer		Adenocarcinoma	
94117	HF-17111-(1)	94123	Gastric Cancer		Adenocarcinoma	
94120	HF-17116-(1)	94126	Gastric Cancer		Adenocarcinoma	
94137	HF-17120-(1)	94145	Gastric Cancer		Adenocarcinoma	
94138	HF-17121-(1)	94146	Gastric Cancer		Adenocarcinoma	
92177	HF-17149-(1)	92185	Gastric Cancer		Adenocarcinoma	
94255	HF-17156-(1)	94258	Gastric Cancer		Adenocarcinoma	
94271	HF-17161-(1)	94274	Gastric Cancer		Adenocarcinoma	
98988	HF-19115-(1)		Gastric Cancer		Adenocarcinoma	

Fig. 1L

94073	HF-17064-(1)	94082	Gastric Cancer		Adenocarcinoma	
94074	HF-17065-(1)	94083	Gastric Cancer		Adenocarcinoma	
94327	HF-17186-(1)	94330	Gastric Cancer		Adenocarcinoma	
94331	HF-17190-(1)	94334	Gastric Cancer		Adenocarcinoma Intestinal	
94291	HF-17202-(1)	94294	Gastric Cancer		Adenocarcinoma	
94347	HF-17230-(1)	94350	Gastric Cancer		Adenocarcinoma	
94175	HF-17119-(1)	94178	Gastric Cancer		Adenocarcinoma	
92174	HF-17144-(1)	92182	Gastric Cancer		Adenocarcinoma Intestinal	
92176	HF-17147-(1)	92183	Gastric Cancer		Adenocarcinoma Intestinal	
94247	HF-17154-(1)	94250	Gastric Cancer		Adenocarcinoma	
94259	HF-17158-(1)	94262	Gastric Cancer		Adenocarcinoma	
94209	HF-17548-(1)	94193	Gastric Cancer		Adenocarcinoma	
94444	HF-17581-(1)	588609	Gastric Cancer		Adenocarcinoma	
94416	HF-17573-(1)	94415	Gastric Cancer		Adenocarcinoma Intestinal	
94440	HF-17574-(1)	94439	Gastric Cancer		Adenocarcinoma Mucinous	
94408	HF-17495-(1)	588608	Gastric Cancer		Adenocarcinoma	
98216	HF-17975-(1)	98220	Gastric Cancer		Adenocarcinoma	
98260	HF-18381-(1)	98258	Gastric Cancer		Adenocarcinoma Intestinal	
98224	HF-18369-(1)	98222	Gastric Cancer		Adenocarcinoma	
98230	HF-18371-(1)	98228	Gastric Cancer		Adenocarcinoma Intestinal	
98236	HF-18373-(1)	98234	Gastric Cancer		Adenocarcinoma Intestinal	
98242	HF-18375-(1)	98240	Gastric Cancer		Adenocarcinoma	
98421	HF-18836-(1)	98419	Gastric Cancer		Adenocarcinoma Intestinal	
97726	HF-18854-(1)	97724	Gastric Cancer		Adenocarcinoma Intestinal	
99947	HF-19360-(1)	99951	Gastric Cancer		Adenocarcinoma	
100025	HF-19366-(1)	100029	Gastric Cancer		Adenocarcinoma	
100031	HF-19368-(1)	100035	Gastric Cancer		Adenocarcinoma	
100055	HF-19376-(1)	100059	Gastric Cancer		Adenocarcinoma	
99905	HF-19336-(1)	99907	Gastric Cancer		Adenocarcinoma	
99929	HF-19346-(1)	99933	Gastric Cancer		Adenocarcinoma	
99977	HF-19352-(1)	99981	Gastric Cancer		Adenocarcinoma	
99955	HF-19105-(1)	99953	Gastric Cancer		Adenocarcinoma Intestinal	
100061	HF-19378-(1)	100065	Gastric Cancer		Adenocarcinoma	
100085	HF-19386-(1)	100089	Gastric Cancer		Adenocarcinoma	
100091	HF-19388-(1)	100095	Gastric Cancer		Adenocarcinoma	
100097	HF-19390-(1)	100101	Gastric Cancer		Adenocarcinoma	
99997	HF-20019-(1)	99995	Gastric Cancer		Adenocarcinoma	
100121	HF-19398-(1)	100125	Gastric Cancer		Adenocarcinoma Intestinal	
100127	HF-19400-(1)	100131	Gastric Cancer		Adenocarcinoma	
100519	HF-19404-(1)	100521	Gastric Cancer		Adenocarcinoma Intestinal	
100531	HF-19408-(1)	100535	Gastric Cancer		Adenocarcinoma Intestinal	
115584	HF-8126-(1)	115583	Gastric Cancer		Adenocarcinoma	
94445	HF-17581-(2)	588609	Gastric Cancer		Adenocarcinoma	
94441	HF-17574-(2)	94439	Gastric Cancer		Adenocarcinoma Mucinous	
94166	HF-17193-(1)		Gastric Cancer		Adenocarcinoma	
94174	HF-17110-(1)		Gastric Cancer		Adenocarcinoma	
94464	HF-17568-(1)		Gastric Cancer		Adenocarcinoma	
99000	HF-19119-(1)		Gastric Cancer		Adenocarcinoma	

Fig. 1M

100525	HF-19406-(1)		Gastric Cancer		Adenocarcinoma Intestinal	
115582	HF-7113-(1)		Gastric Cancer		Adenocarcinoma	
587244	HF-18084-(2)	587245	Colorectal Cancer		Adenocarcinoma	yes
587282	HF-18265-(1)	587283	Colorectal Cancer	Colon Sigmoid	Adenocarcinoma	yes
587286	HF-18275-(1)	587287	Cecum		Adenocarcinoma	yes
587298	HF-18309-(1)	587299	Cecum		Adenocarcinoma	yes
587388	HF-20387-(1)	587389	Colorectal Cancer	Colon Sigmoid	Adenocarcinoma	yes
587390	HF-20389-(2)	587391	Rectum		Adenocarcinoma	yes

Fig. 2A

1	actccagcct	cgcgcgaggag	ggggcgcggc	cgtgactcac	ccccctccct	ctgcgttcct
61	ccctccctct	ctctctctct	ctcacacaca	cacacccctc	ccctgccatc	cctccccgga
121	ctccggctcc	ggctccgatt	gcaatttgca	acctccgctg	ccgtcgccgc	agcagccacc
181	aattcgccag	cggttcaggt	ggctcttgcc	tcgatgtcct	agcctagggg	ccccggggcc
241	ggacttggct	ggcctccctt	caccctctgc	ggagtcatga	gggcgaacga	cgctctgcag
301	gtgctgggct	tgcttttcag	cctggcccgg	ggctccgagg	tgggcaactc	tcaggcagtg
361	tgtcctggga	ctctgaatgg	cctgagtggt	accggcgatg	ctgagaacca	ataccagaca
421	ctgtacaagc	tctacgagag	gtgtgaggtg	gtgatgggga	accttgagat	tgtgctcacg
481	ggacacaatg	ccgacctctc	cttcctgcag	tggattcgag	aagtgcacag	ctatgtcctc
541	gtggccatga	atgaattctc	tactctacca	ttgcccaacc	tccgcgtggt	gcgagggacc
601	caggtctacg	atgggaagtt	tgccatcttc	gtcatgttga	actataacac	caactccagc
661	cacgctctgc	gccagctccg	cttgactcag	ctcaccgaga	ttctgtcagg	gggtgtttat
721	attgagaaga	acgataagct	ttgtcacatg	gacacaattg	actggaggga	catcgtgagg
781	gaccgagatg	ctgagatagt	ggtgaaggac	aatggcagaa	gctgtccccc	ctgtcatgag
841	gtttgcaagg	ggcgatgctg	gggtcctgga	tcagaagact	gccagacatt	gaccaagacc
901	atctgtgctc	ctcagtgtaa	tggctactgc	tttgggccc	accccaacca	gtgctgccat
961	gatgagtggt	ccgggggctg	ctcaggccct	caggacacag	actgctttgc	ctgccggcac
1021	ttcaatgaca	gtggagcctg	tgtacctcgc	tgtccacagc	ctcttgtcta	caacaagcta
1081	actttccagc	tggaaaccaa	tccccacacc	aagtatcagt	atggaggagt	ttgtgtagcc
1141	agctgtcccc	ataactttgt	ggtggatcaa	acatcctgtg	tcagggcctg	tcctcctgac
1201	aagatggaag	tagataaaaa	tgggctcaag	atgtgtgagc	cttgtggggg	actatgtccc
1261	aaagcctgtg	agggaaacagg	ctctgggagc	cgcttcagag	ctgtggactc	gagcaacatt
1321	gatggatttg	tgaactgcac	caagatcctg	ggcaacctgg	actttctgat	caccggcctc
1381	aatggagacc	cctggcaca	gatccctgcc	ctggaccacg	agaagctcaa	tgtcttccgg
1441	acagtacggg	agatcacagg	ttacctgaac	atccagtcct	ggccgcccc	catgcacaac
1501	ttcagtgttt	tttccaattt	gacaaccatt	ggaggcagaa	gcctctacaa	ccggggcttc
1561	tcattgttga	tcatgaagaa	cttgaatgtc	acatctctgg	gcttcgcagc	cctgaaggaa
1621	attagtgctg	ggcgtatcta	tataagtgcc	aataggcagc	tctgtctacca	ccactctttg
1681	aactggacca	aggtgcttcg	ggggcctacg	gaagagcgac	tagacatcaa	gcataatcgg
1741	ccgcgcagag	actgcgtggc	agagggcaaa	gtgtgtgacc	cactgtgctc	ctctggggga
1801	tgctggggcc	caggccctgg	tcagtgcctg	tcctgtcgaa	attatagccg	aggaggtgtc
1861	tgtgtgaccc	actgcaactt	tctgaatggg	gagcctcgag	aatttgccca	tgaggccgaa
1921	tgcttctcct	gccaccggga	atgccaaccc	atggagggca	ctgccacatg	caatggctcg
1981	ggctctgata	cttgtgtcta	atgtgcccc	tttcgagatg	ggccccactg	tgtgcagcgc
2041	tgccccctag	gagtcctagg	tgccaagggc	ccaatctaca	agtaccacga	tggttcagaat
2101	gaatgtcggc	cctgccatga	gaactgcacc	cagggggtgta	aaggaccaga	gcttcaagac
2161	tgttttaggac	aaacactggg	gctgatcggc	aaaacccatc	tgacaatggc	tttgacagtg
2221	atagcaggat	tggtagtgat	tttcatgatg	ctgggcggca	cttttctcta	ctggcggtgg
2281	cgccggattc	agaataaaa	ggctatgagg	cgataacttg	aacggggtga	gagcatagag
2341	cctctggacc	ccagtgcaga	ggctaacaaa	gtcttggcca	gaatcttcaa	agagacagag
2401	ctaaggaagc	ttaaagtgtc	tggctcgggt	gtctttggaa	ctgtgcacaa	aggagtgtgg
2461	atccctgagg	gtgaatcaat	caagattcca	gtctgcatta	aagtcattga	ggacaagagt
2521	ggacggcaga	gttttcaagc	tgtgacagat	catatgctgg	ccattggcag	cctggaccat
2581	gcccacattg	taaggctgct	gggactatgc	ccagggtcat	ctctgcagct	tgtcactcaa
2641	tatttgcctc	tgggttctct	gctggatcat	gtgagacaac	accggggggc	actggggcca
2701	cagctgctgc	tcaactgggg	agtacaaatt	gccaagggaa	tgtactacct	tgaggaacat
2761	ggtatggtgc	atagaaaacct	ggctgcccga	aacgtgctac	tcaagtcacc	cagtcagggt
2821	cagggtggcag	atttttggtg	ggctgacctg	ctgcctcctg	atgataagca	gctgctatac
2881	agtgaggcca	agactccaat	taagtggatg	gcccttgaga	gtatccactt	tgggaaatac
2941	acacaccaga	gtgatgtctg	gagctatggg	gtgacagttt	gggagttgat	gaccttcggg
3001	gcagagccct	atgcagggct	acgattggct	gaagtaccag	acctgctaga	gaagggggag
3061	cggttggcac	agccccagat	ctgcacaatt	gatgtctaca	tggatgaggt	caagtgttgg
3121	atgattgatg	agaacattcg	cccaaccttt	aaagaactag	ccaatgagtt	caccaggatg
3181	gcccagagacc	caccacggta	tctggctcata	aagagagaga	gtgggcctgg	aatagcccct
3241	gggccagagc	cccatgggtc	gacaaacaag	aagctagagg	aagtagagct	ggagccagaa
3301	ctagacctag	acctagactt	ggaagcagag	gaggacaacc	tggcaaccac	cacactgggc
3361	tccgcctca	gcctaccagt	tggaaacatt	aatcgccac	gtgggagcca	gagcctttta

Fig. 2B

```

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3661 gatagcgctt accattccca gcgccacagt ctgctgactc ctgttaccac actctcccca
3721 cccgggttag aggaagagga tgtcaacggt tatgtcatgc cagatacaca cctcaaaggt
3781 actccctcct cccgggaagg caccctttct tcagtgggtc tcagtcttgt cctgggtact
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```

Fig. 3

```

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121 lnyntnssha  lrqlrltqlt  eilsggyvie  kndklchmdt  idwrdivrdr  daeivvkdnq
181 rscppchevc  kgrcwpggse  dcqtltktic  apqcnghcfg  pnpnqcchde  caggcsgpqd
241 tdcfacrhfn  dsgacvprcp  qplvynkltf  qlepnphtky  qyggvcvasc  phnfvvdqts
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Fig. 4

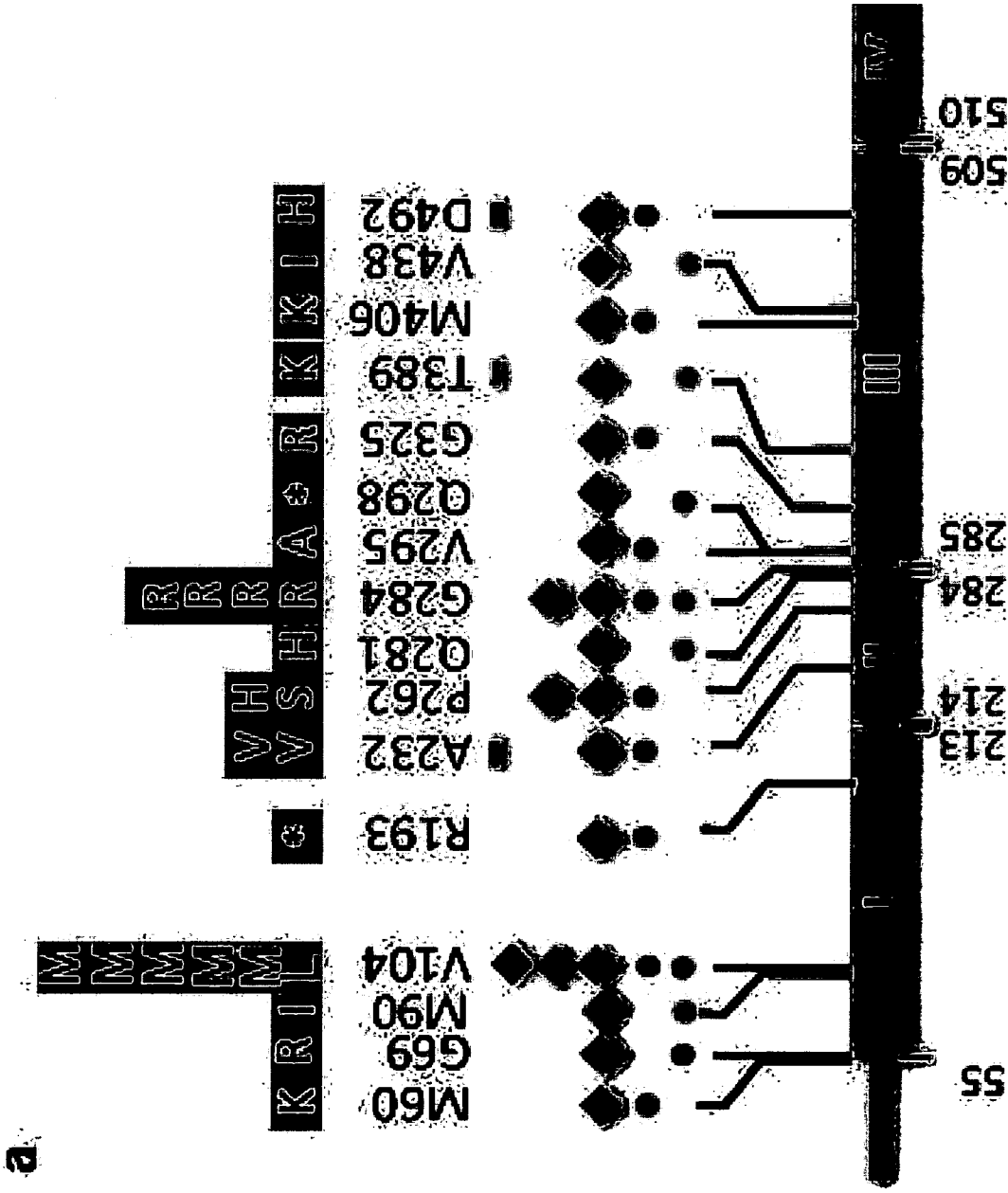


Fig. 4 (continued)

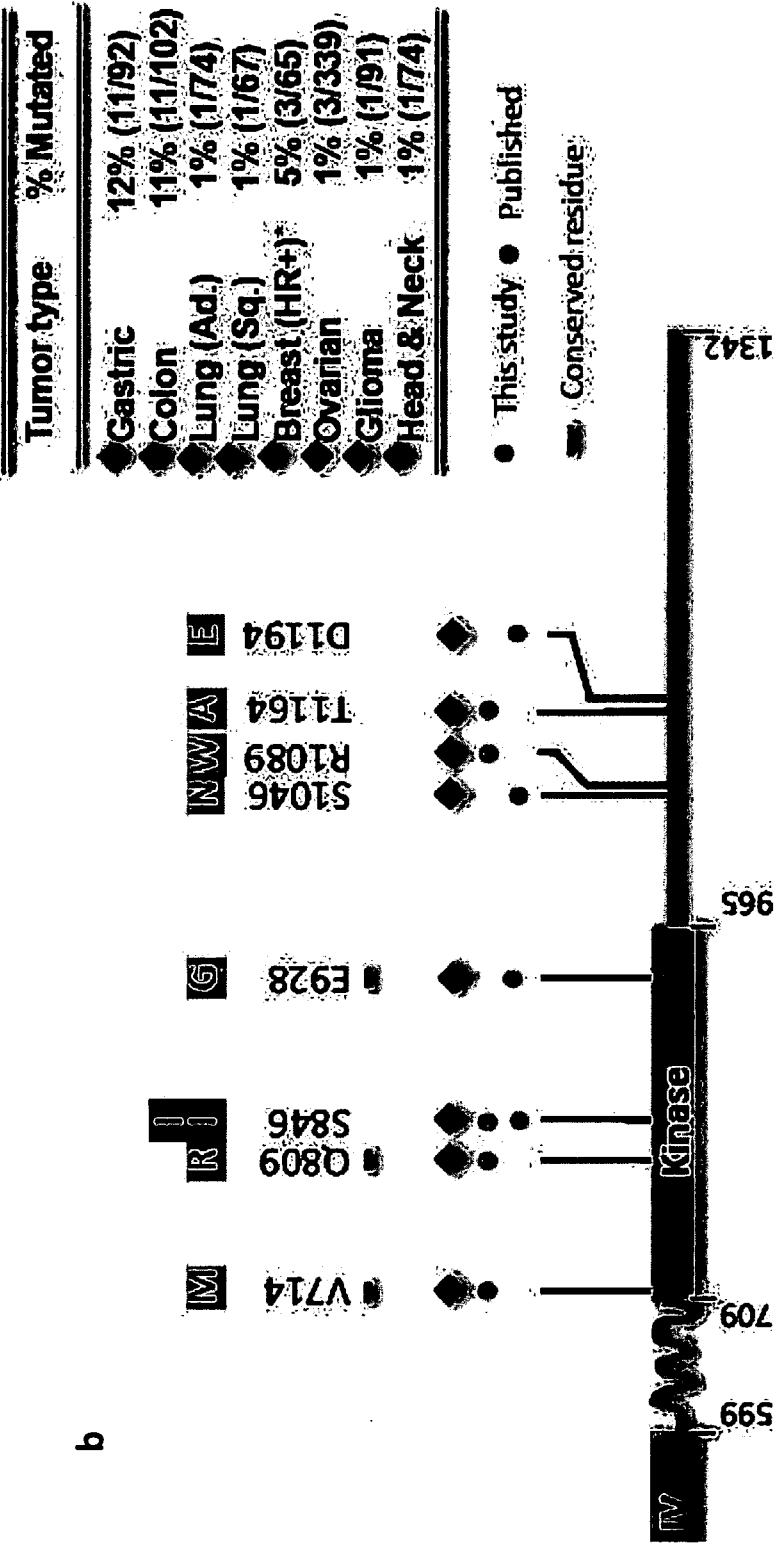


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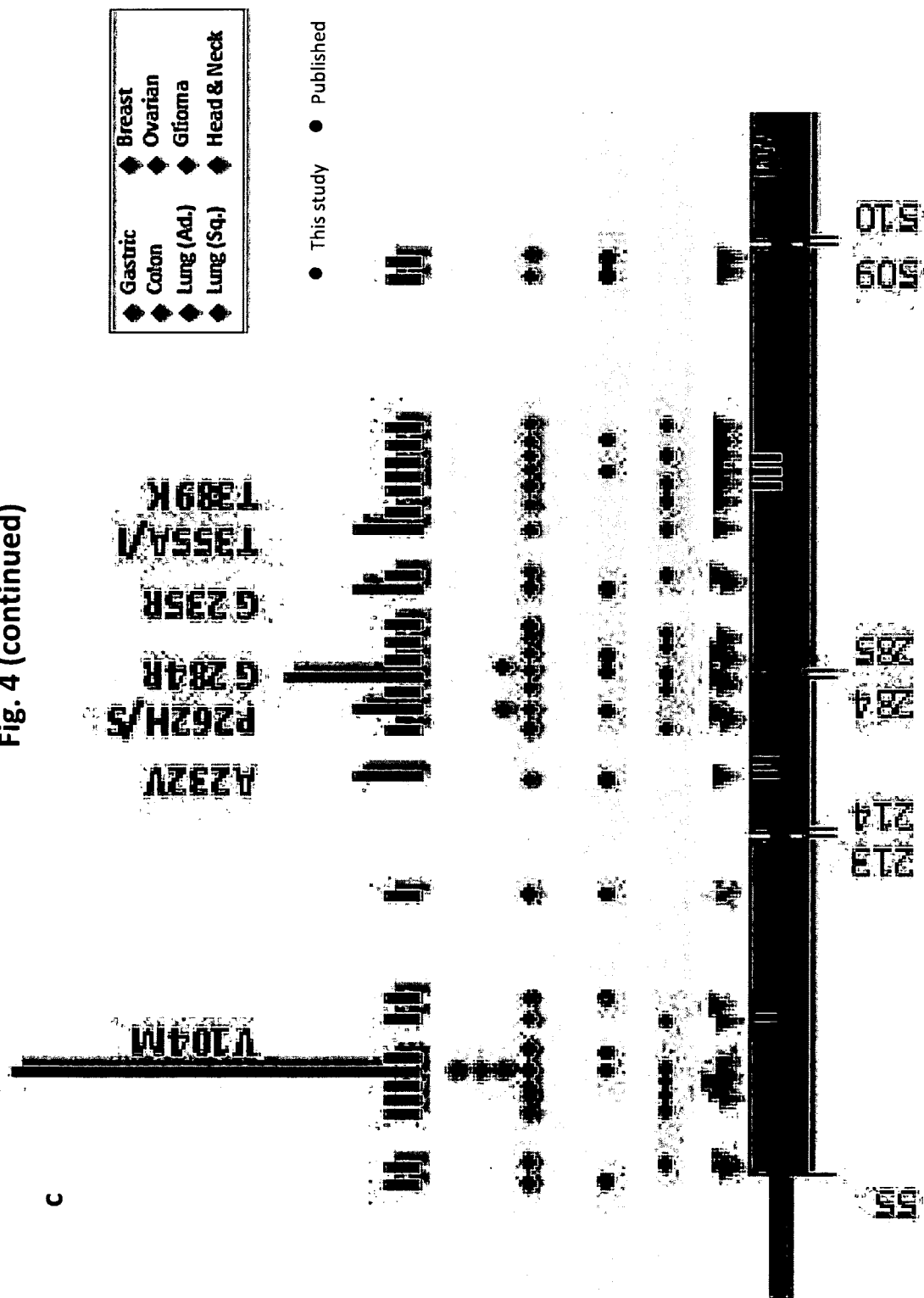


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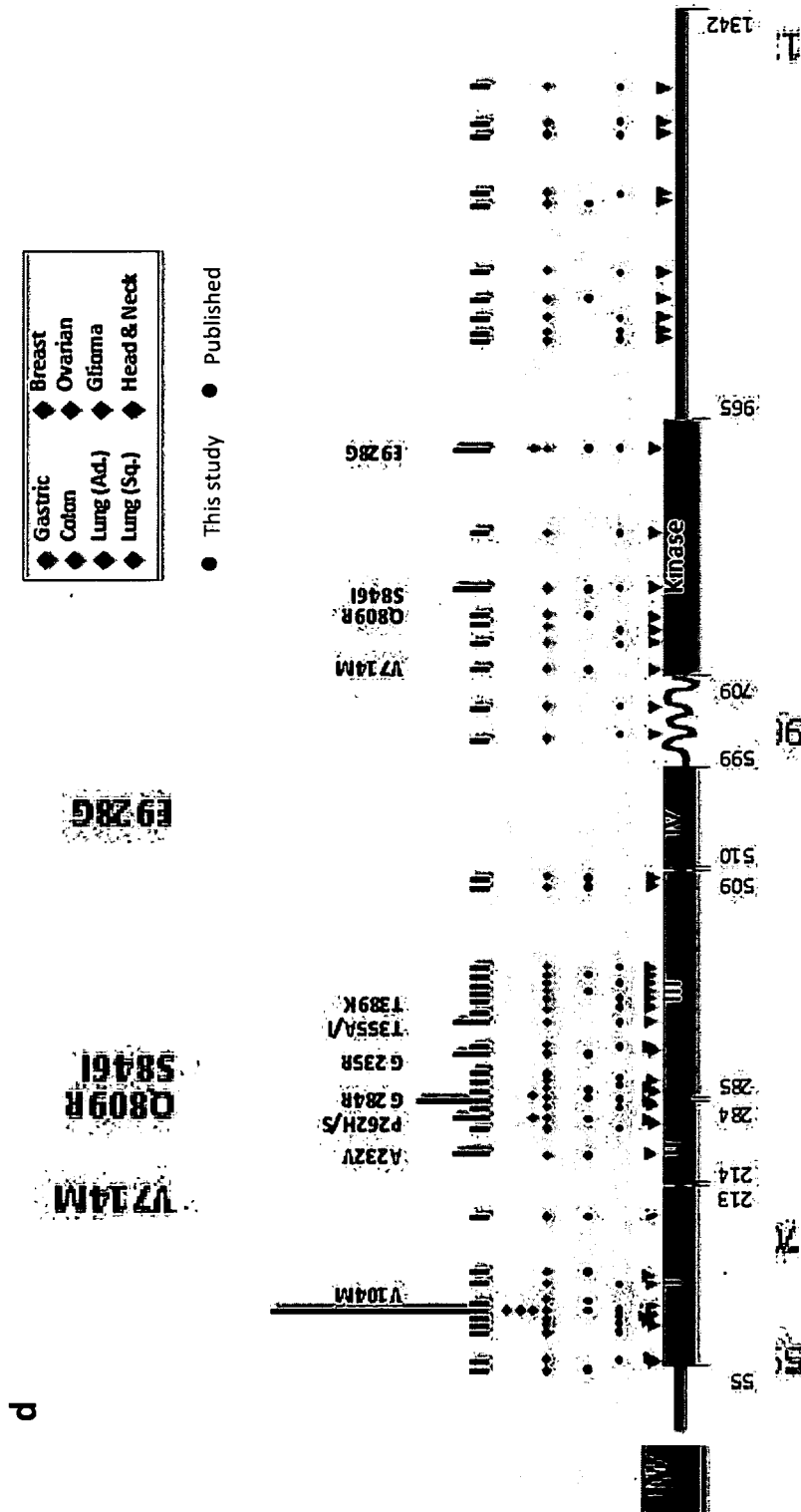
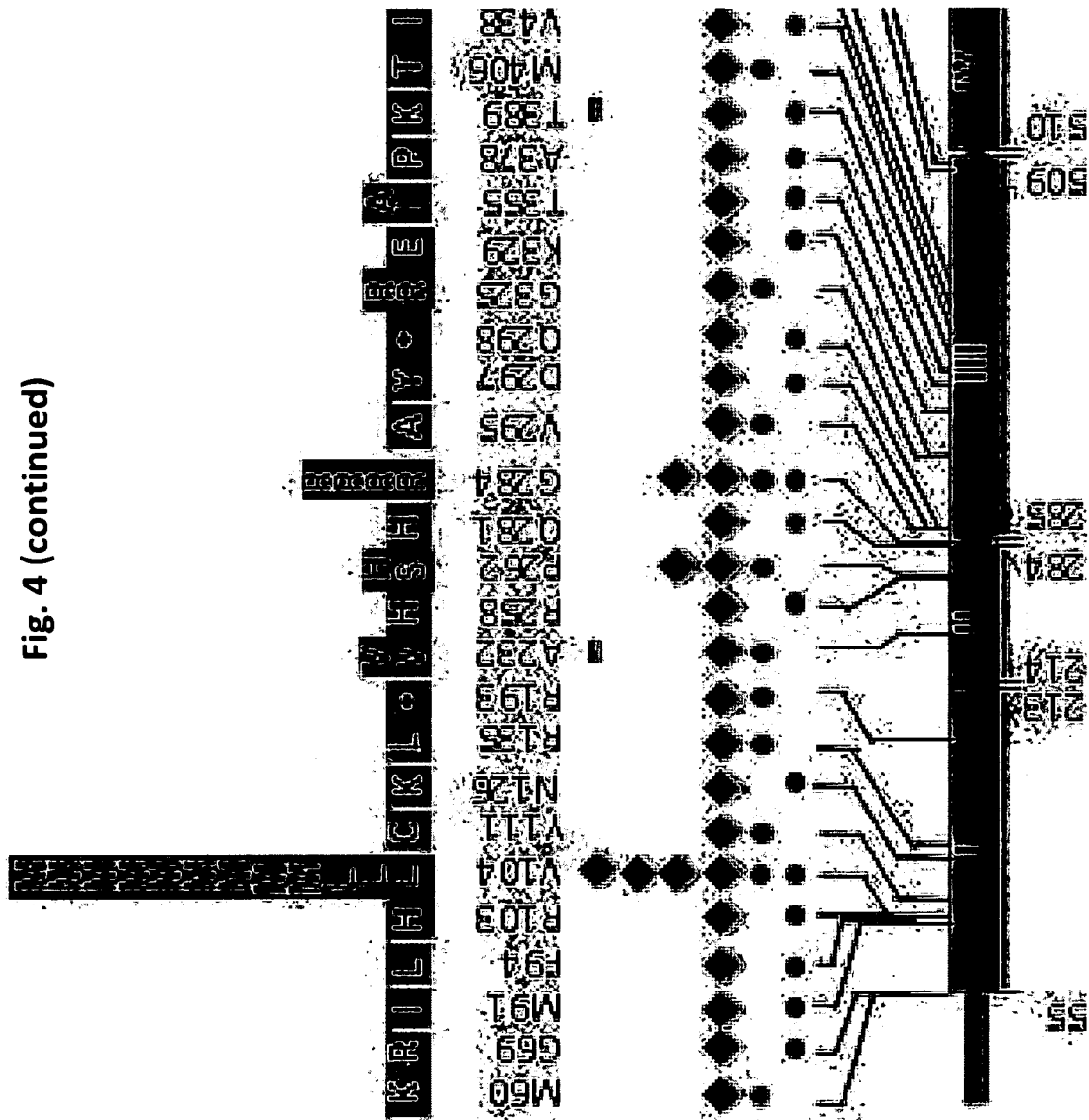


Fig. 4 (continued)



e

Fig. 4 (continued)

f

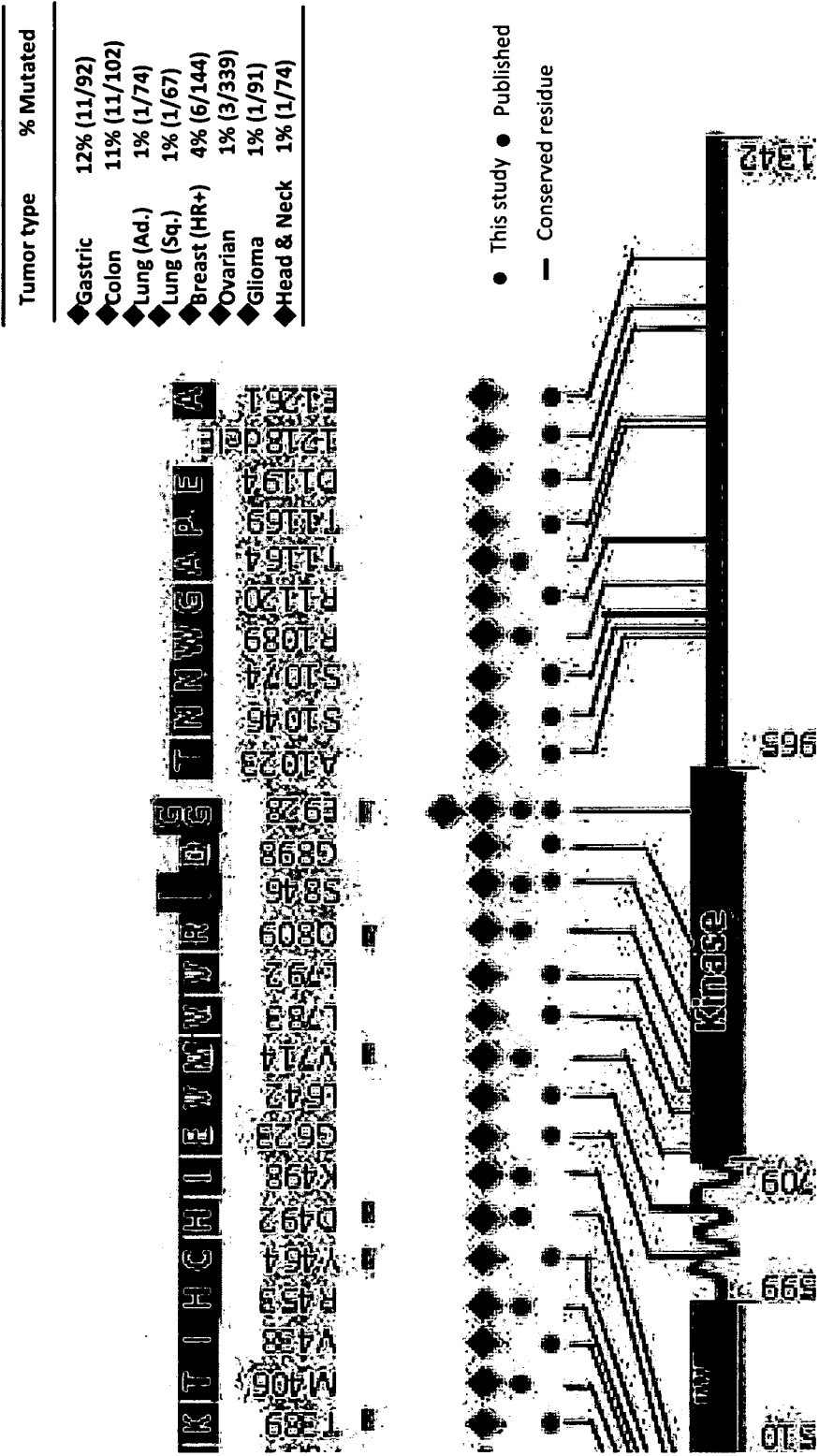


Fig. 5

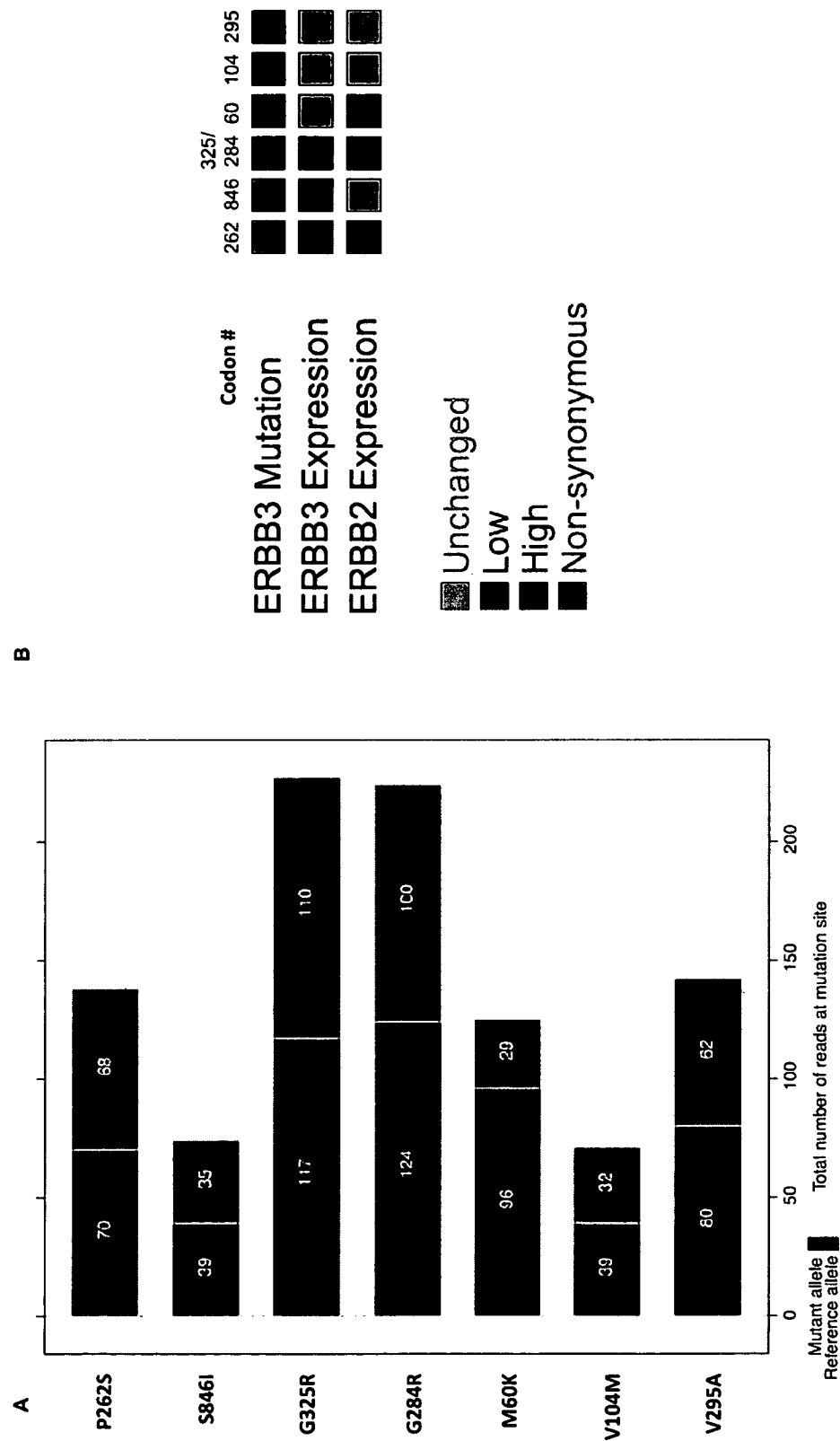


Fig. 6

NP_001973.2	ANALQVLCILSLA GS	ALVFLGEVYGNLFI VLTG	PNLWVGTQWYC FAIF
NP_034283.1	SAI GTLCVLCILSLA GS	ALVFLGEVYGNLFI VLTG	PNLWVGTQWYC FAIF
NP_058914.2	ATGTLQVLCILSLA GS	ALVFLGEVYGNLFI VLTG	PNLWVGTQWYC FAIF
NP_001096575.1	VA ALQVLCILSLA GS	ALVFLGEVYGNLFI VLTG	PNLWVGTQWYC FAIF
XP_509131.2	VA ALQVLCILSLA GS	ALVFLGEVYGNLFI VLTG	PNLWVGTQWYC FAIF
NP_001973.2	VM C SEPPG EVE G GWGPGSE	GNPNQCEG DE GAGGSGPCE	NESGAGVP EGPPLV
NP_034283.1	VM C SEPPG EVE G GWGPGSE	GNPNQCEG DE GAGGSGPCE	NESGAGVP EGPPLV
NP_058914.2	VM C SEPPG EVE G GWGPGSE	GNPNQCEG DE GAGGSGPCE	NESGAGVP EGPPLV
NP_001096575.1	VM C SEPPG EVE G GWGPGSE	GNPNQCEG DE GAGGSGPCE	NESGAGVP EGPPLV
XP_509131.2	VM C SEPPG EVE G GWGPGSE	GNPNQCEG DE GAGGSGPCE	NESGAGVP EGPPLV
NP_001973.2	NLTF VQYGGVVASGP NFVVDQTS	MEVDNCLMEEPCCGLGP A	GEPMN PALOP
NP_034283.1	NLTF VQYGGVVASGP NFVVDQTS	MEVDNCLMEEPCCGLGP A	GEPMN PALOP
NP_058914.2	NLTF VQYGGVVASGP NFVVDQTS	MEVDNCLMEEPCCGLGP A	GEPMN PALOP
NP_001096575.1	NLTF VQYGGVVASGP NFVVDQTS	MEVDNCLMEEPCCGLGP A	GEPMN PALOP
XP_509131.2	NLTF VQYGGVVASGP NFVVDQTS	MEVDNCLMEEPCCGLGP A	GEPMN PALOP
NP_001973.2	LNVPF TV OSWPP M NFSVFSNLTTI GG	LIU M NLNVTSLGFSN EIS	ELBDIYN
NP_034283.1	LNVPF TV OSWPP M NFSVFSNLTTI GG	LIU M NLNVTSLGFSN EIS	ELBDIYN
NP_058914.2	LNVPF TV OSWPP M NFSVFSNLTTI GG	LIU M NLNVTSLGFSN EIS	ELBDIYN
NP_001096575.1	LNVPF TV OSWPP M NFSVFSNLTTI GG	LIU M NLNVTSLGFSN EIS	ELBDIYN
XP_509131.2	LNVPF TV OSWPP M NFSVFSNLTTI GG	LIU M NLNVTSLGFSN EIS	ELBDIYN
NP_001973.2	LDGVAFC VG LAIIF RETFLIL VLGSVGF	QHTGALGPQLLNMGVO A	VLL SP
NP_034283.1	LDGVAFC VG LAIIF RETFLIL VLGSVGF	QHTGALGPQLLNMGVO A	VLL SP
NP_058914.2	LDGVAFC VG LAIIF RETFLIL VLGSVGF	QHTGALGPQLLNMGVO A	VLL SP
NP_001096575.1	LDGVAFC VG LAIIF RETFLIL VLGSVGF	QHTGALGPQLLNMGVO A	VLL SP
XP_509131.2	LDGVAFC VG LAIIF RETFLIL VLGSVGF	QHTGALGPQLLNMGVO A	VLL SP
NP_001973.2	QVQVADFGVADLLD	VFLLERCE LAOPQI GRI DV	ALSIPVGTLM P GSGLLSP
NP_034283.1	QVQVADFGVADLLD	VFLLERCE LAOPQI GRI DV	ALSIPVGTLM P GSGLLSP
NP_058914.2	QVQVADFGVADLLD	VFLLERCE LAOPQI GRI DV	ALSIPVGTLM P GSGLLSP
NP_001096575.1	QVQVADFGVADLLD	VFLLERCE LAOPQI GRI DV	ALSIPVGTLM P GSGLLSP
XP_509131.2	QVQVADFGVADLLD	VFLLERCE LAOPQI GRI DV	ALSIPVGTLM P GSGLLSP
NP_001973.2	LPDPCGLASESSEC	VMPDT ILGTPSSREGTLSSV	EEDEDEEVEYMNK SPP
NP_034283.1	LPDPCGLASESSEC	VMPDT ILGTPSSREGTLSSV	EEDEDEEVEYMNK SPP
NP_058914.2	LPDPCGLASESSEC	VMPDT ILGTPSSREGTLSSV	EEDEDEEVEYMNK SPP
NP_001096575.1	LPDPCGLASESSEC	VMPDT ILGTPSSREGTLSSV	EEDEDEEVEYMNK SPP
XP_509131.2	LPDPCGLASESSEC	VMPDT ILGTPSSREGTLSSV	EEDEDEEVEYMNK SPP

Fig. 7



Figure 8

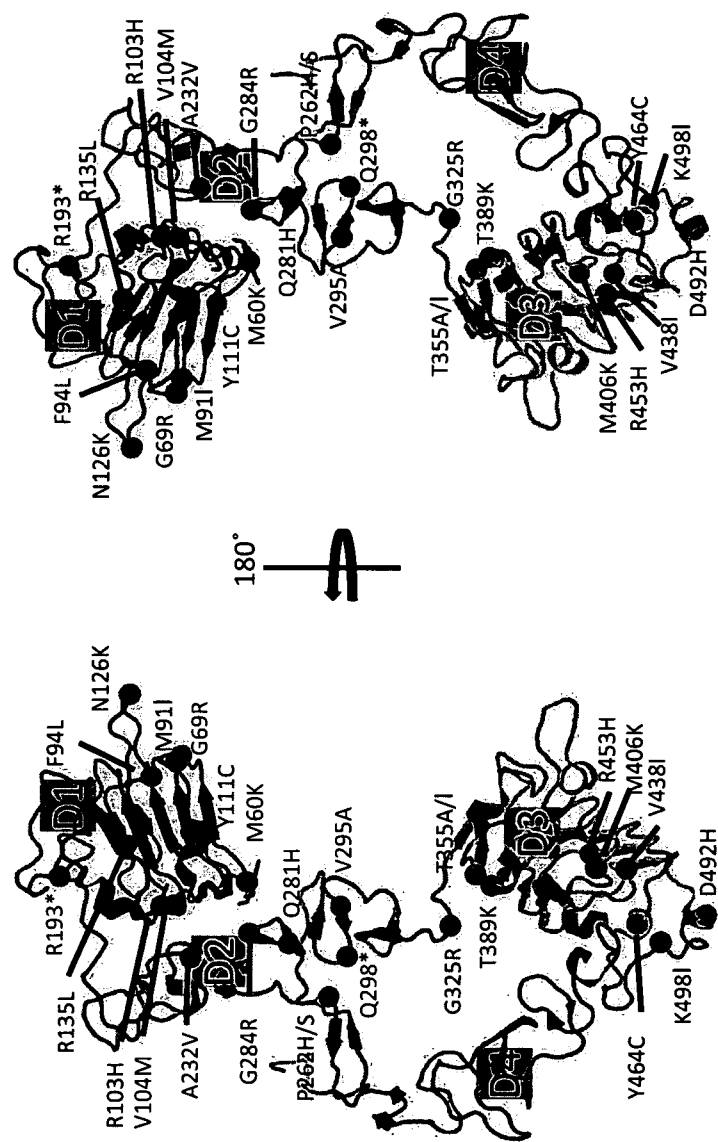


Fig. 9

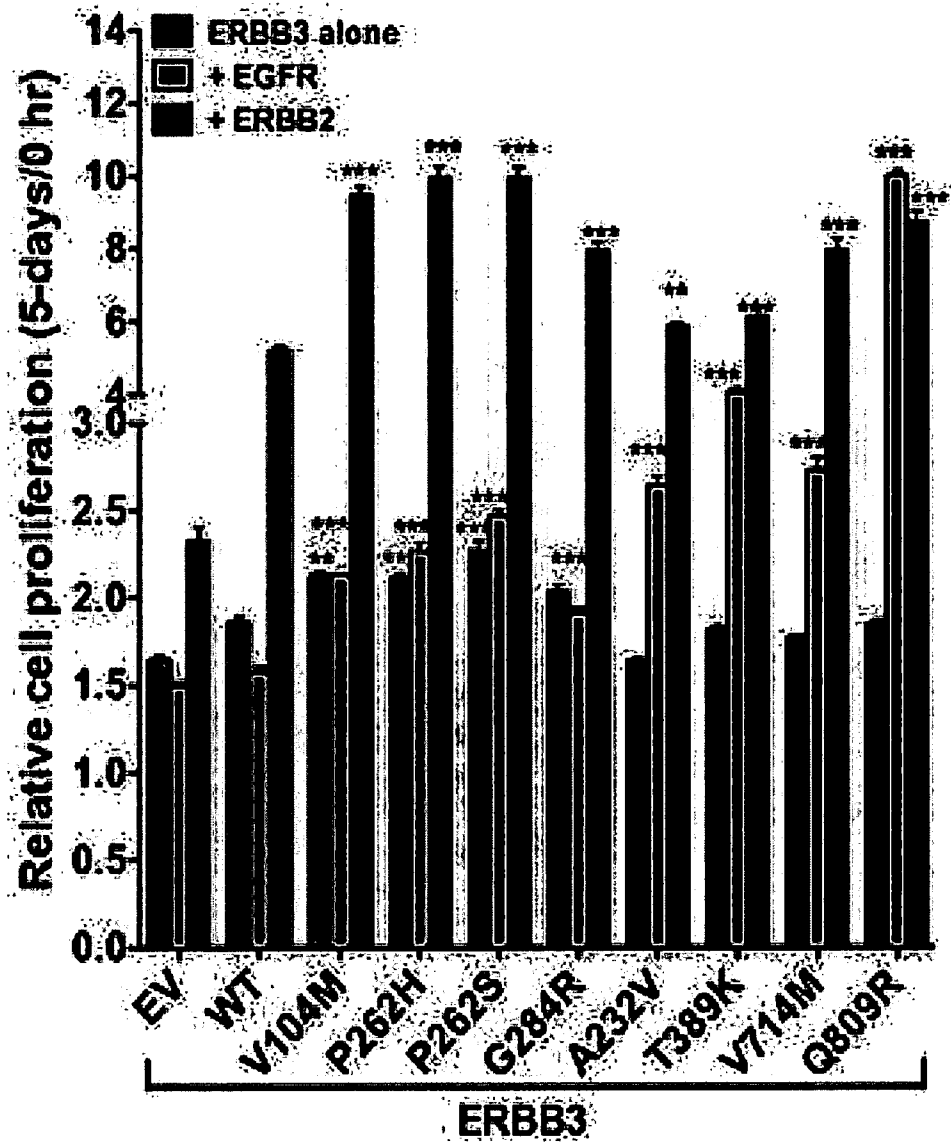


Fig. 10

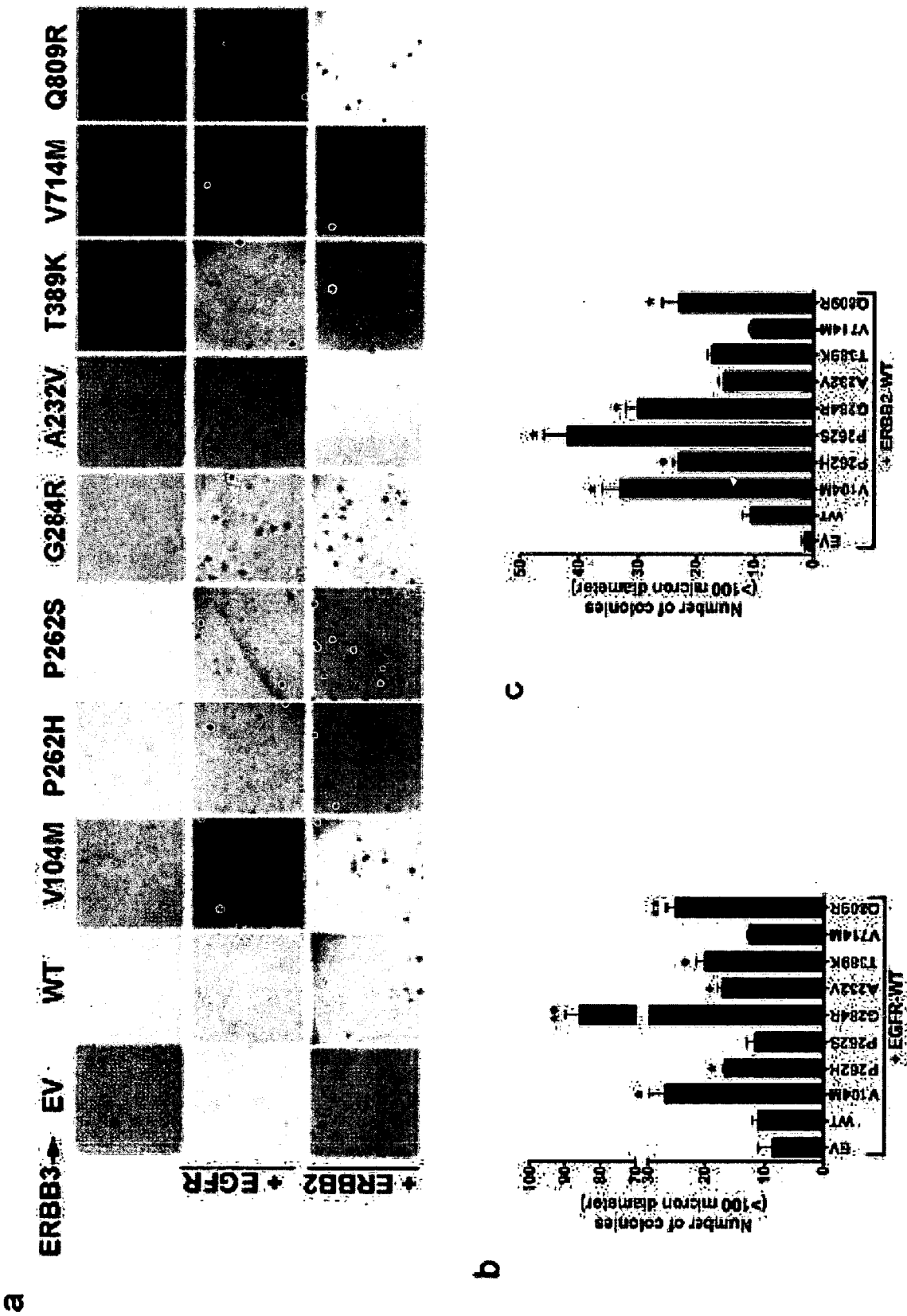


Fig. 11

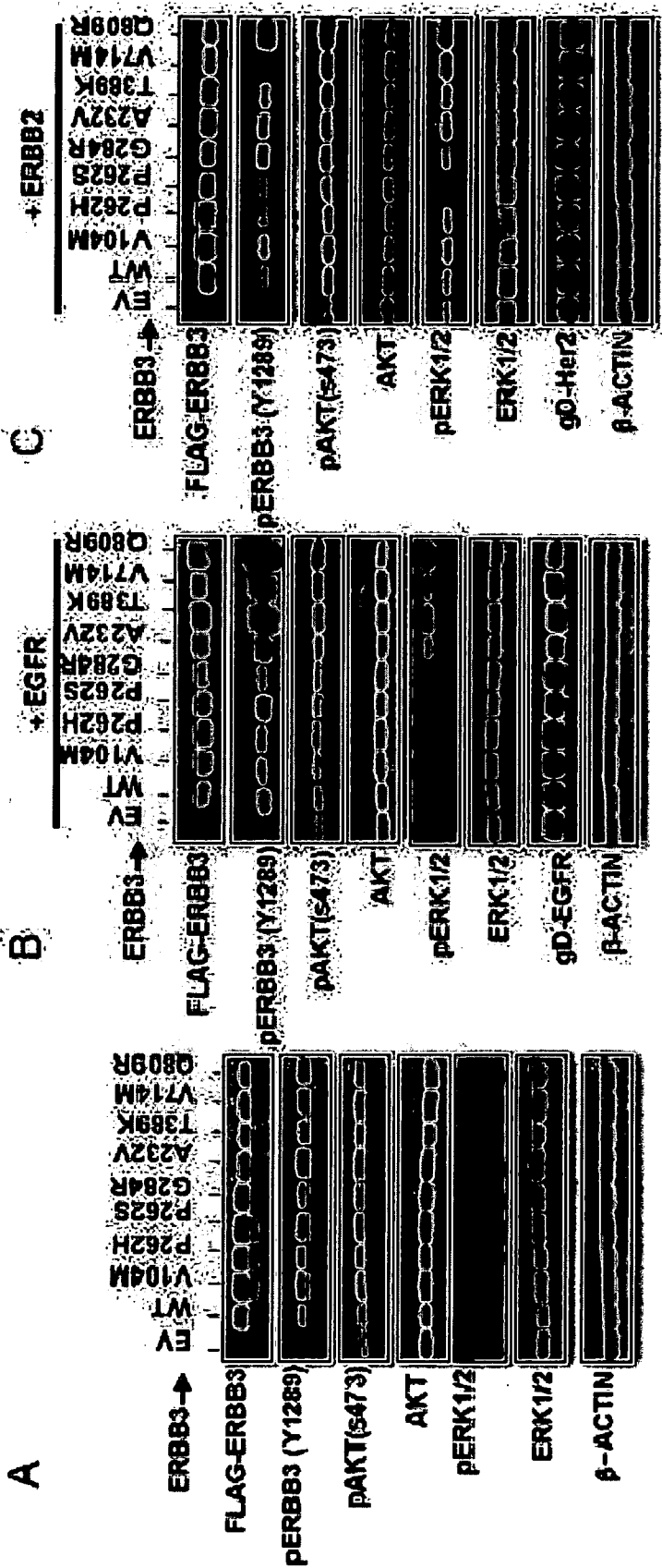


Fig. 12

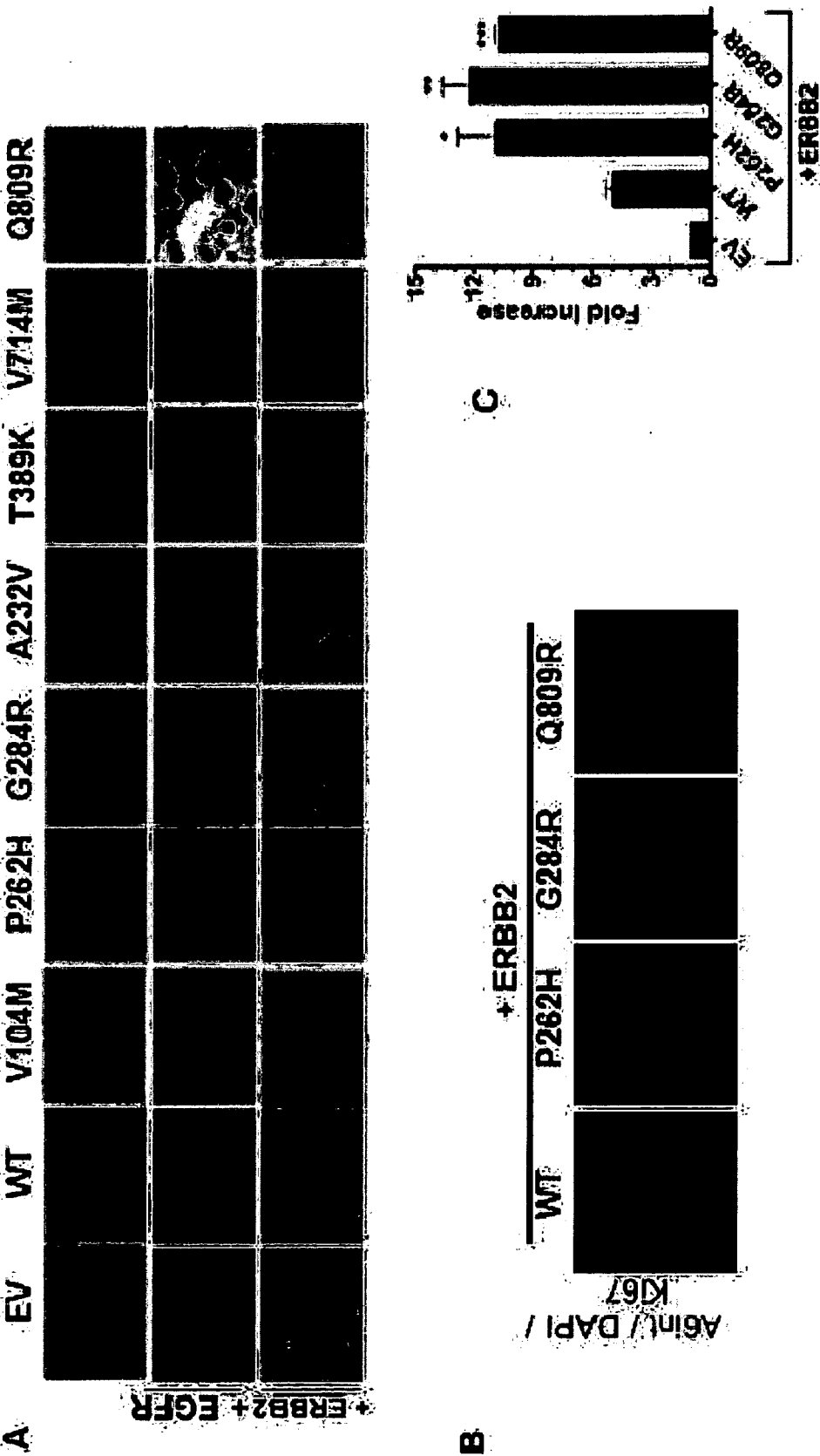


Fig. 13A

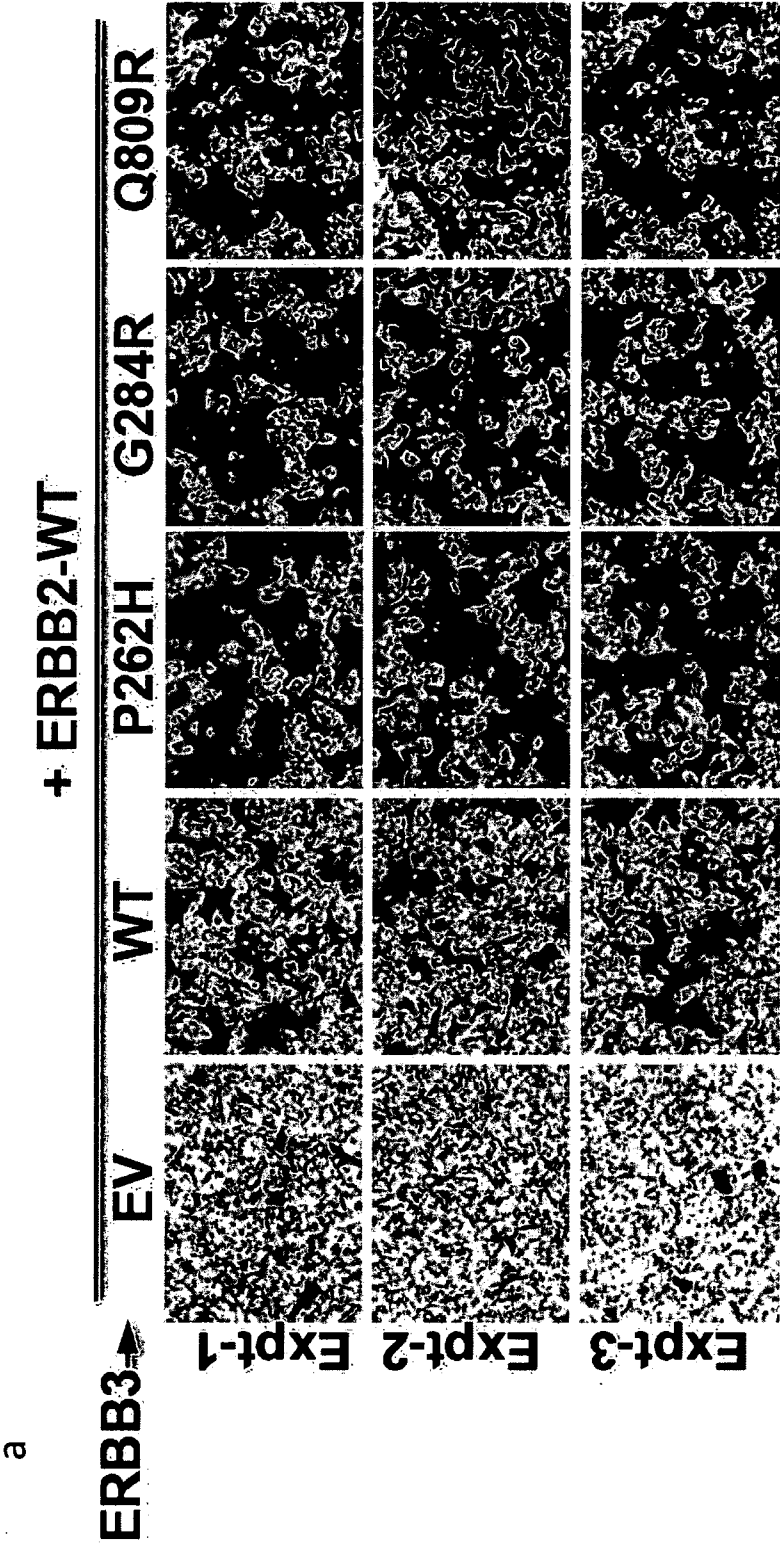
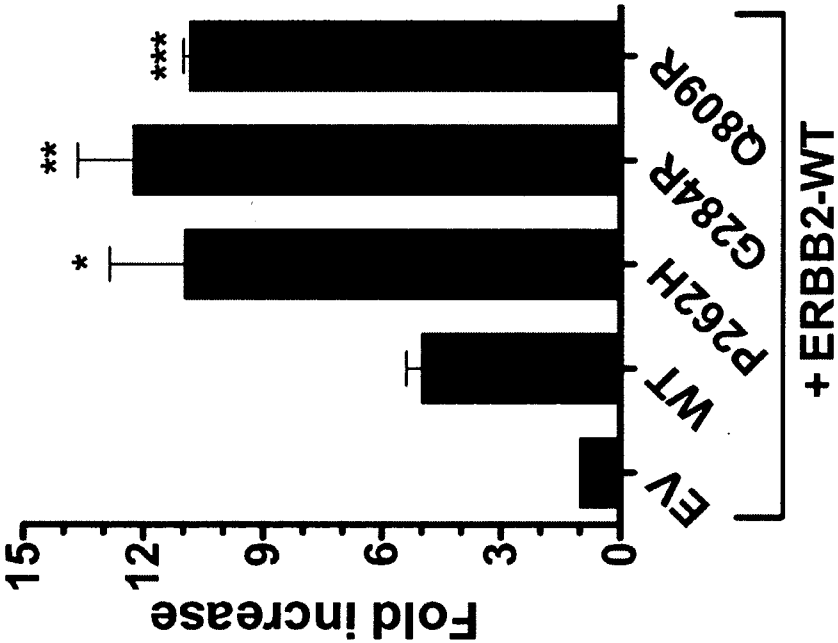


Fig. 13A



b

Fig. 13B

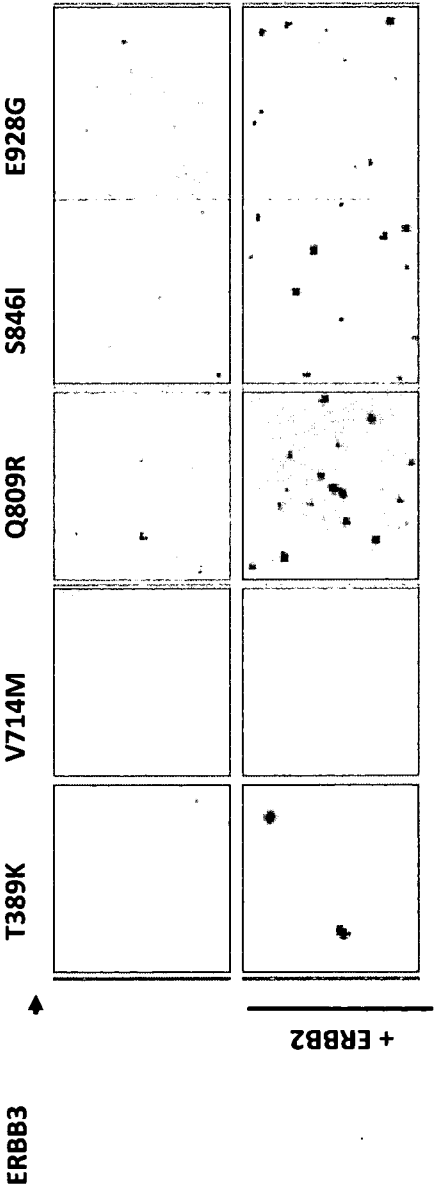
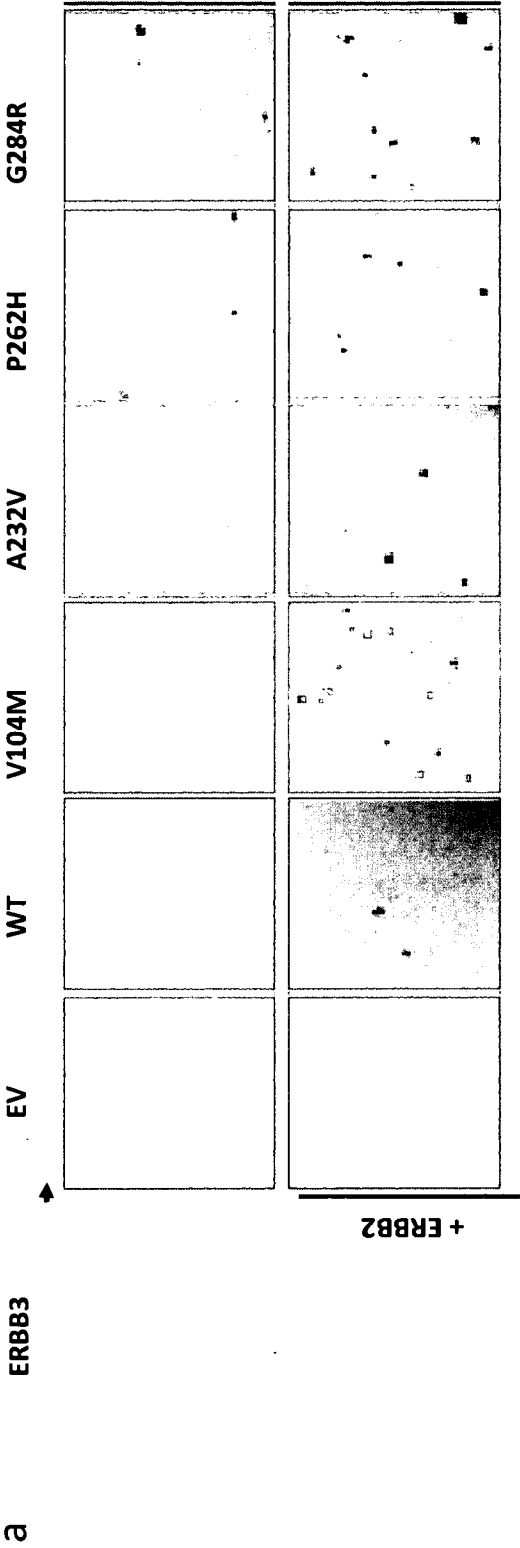


Fig. 13B

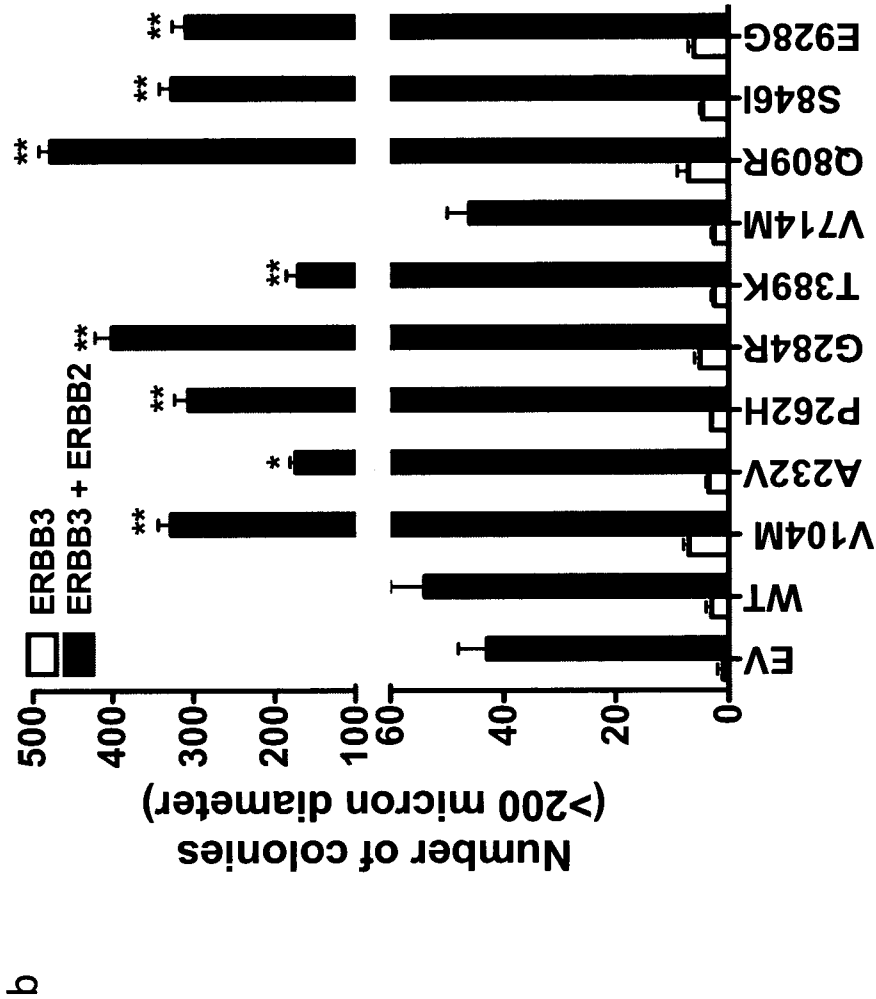


Fig. 13B

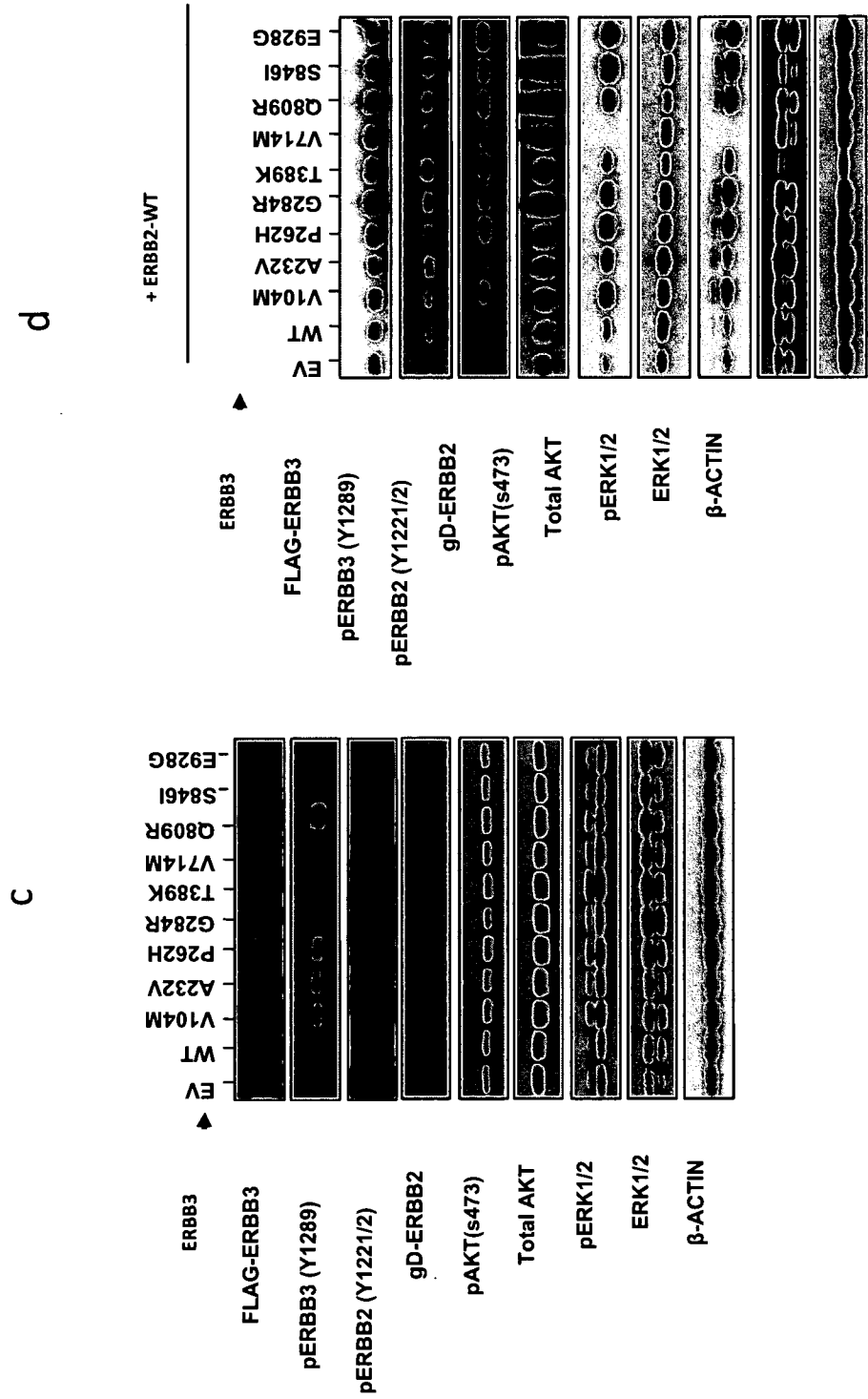
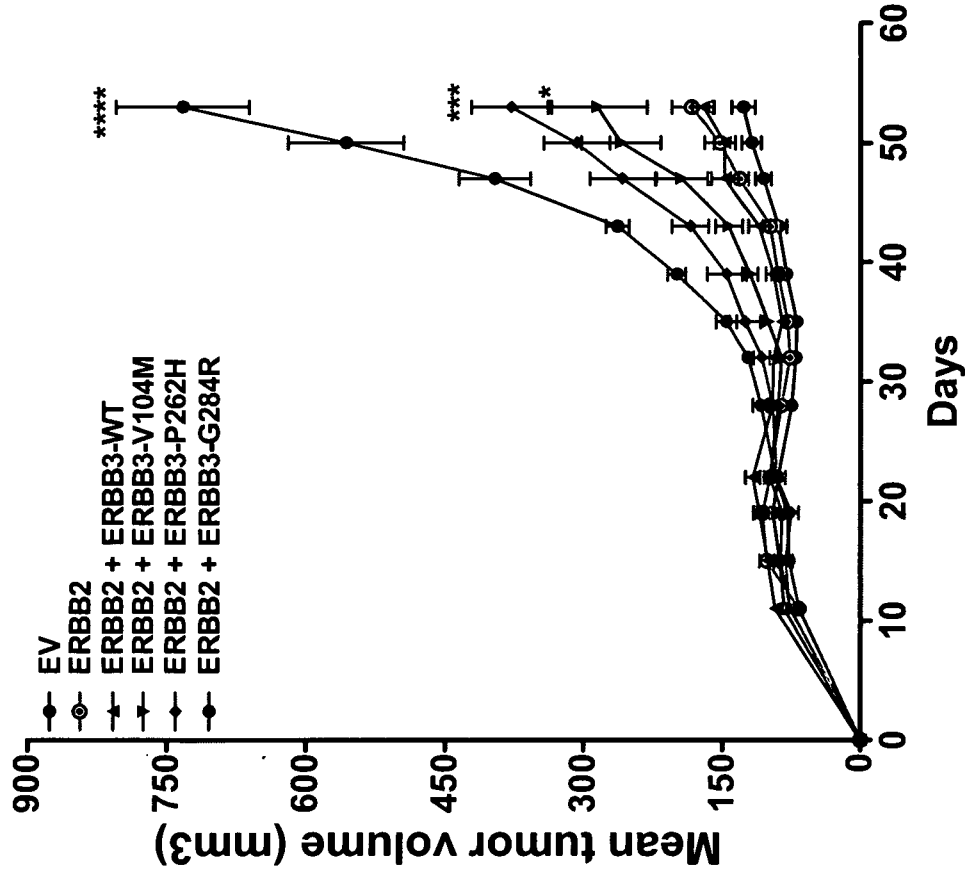


Fig. 13B



e

Fig. 14

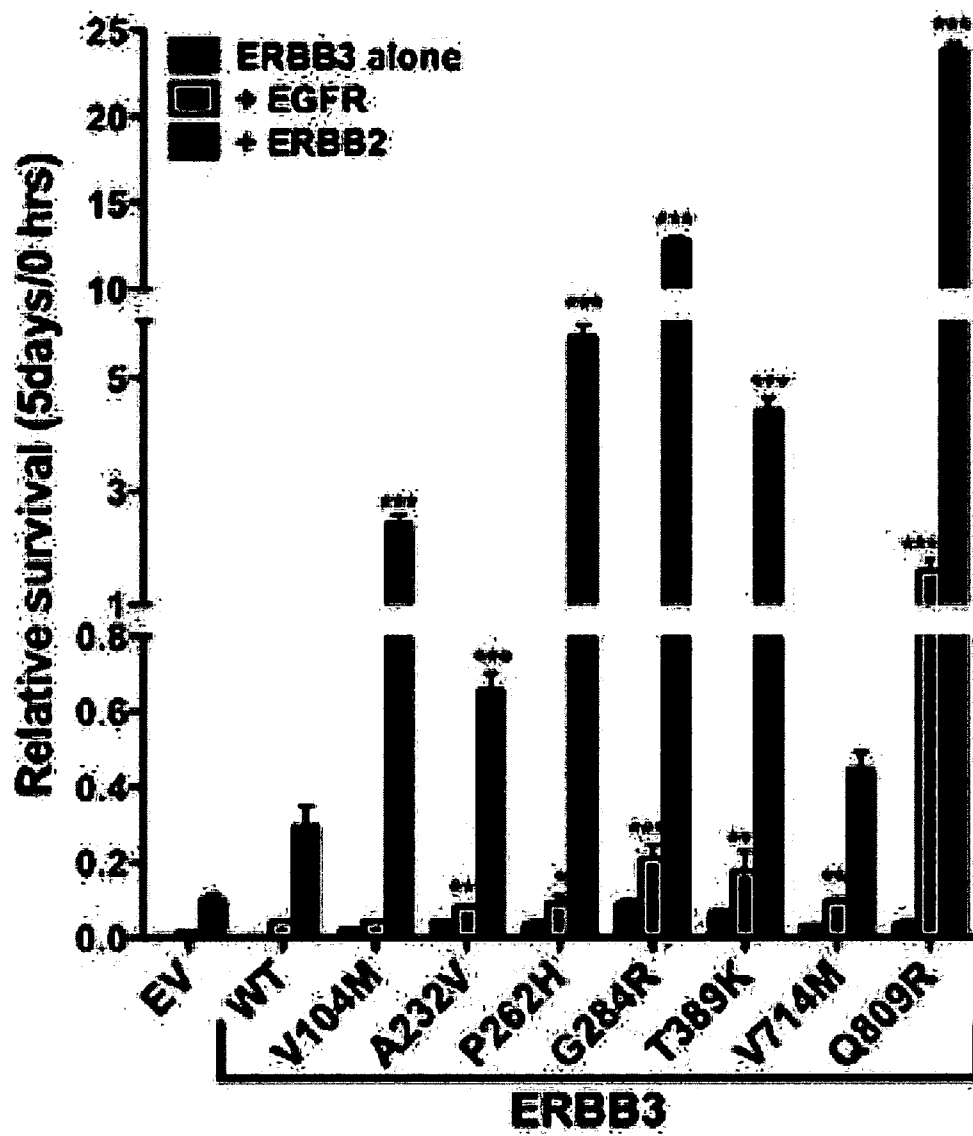


Fig. 15

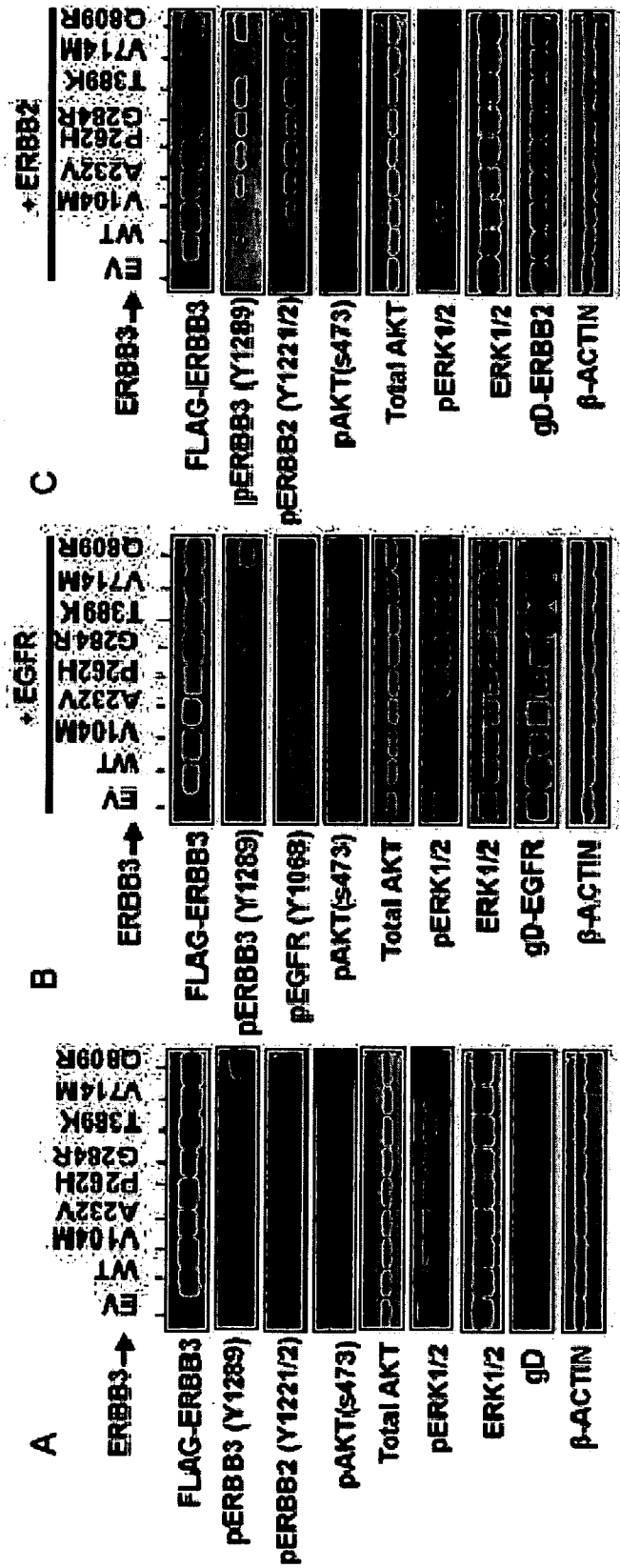


Fig. 16

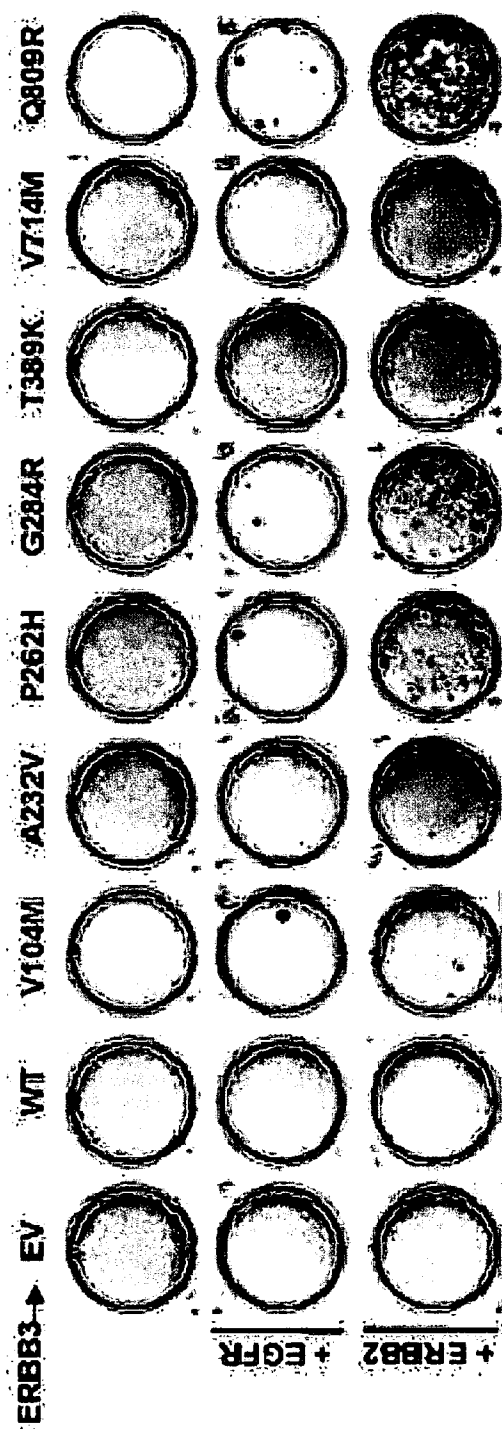


Fig. 17

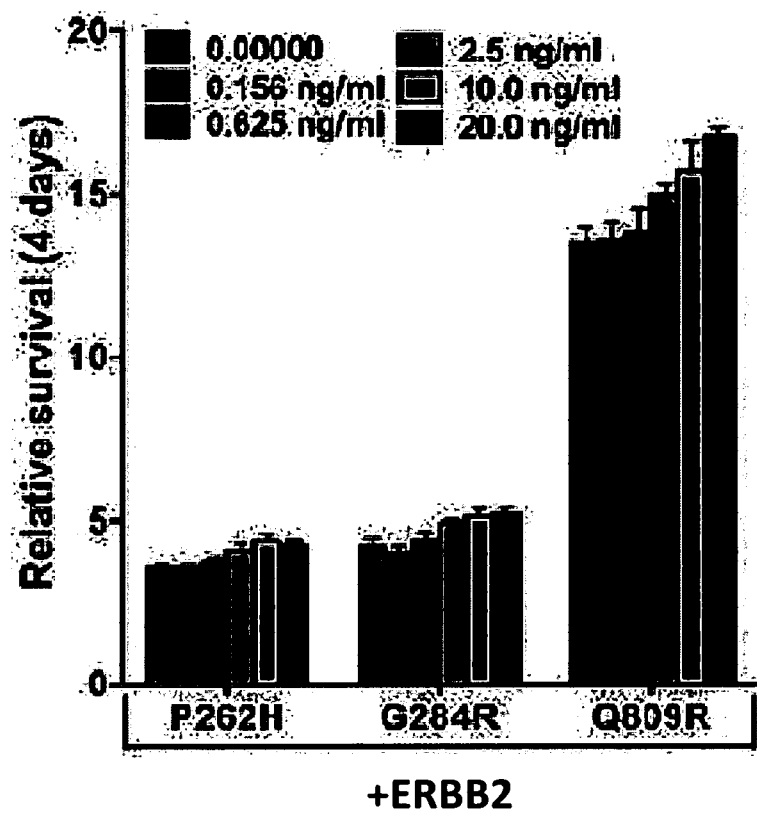


Fig. 18

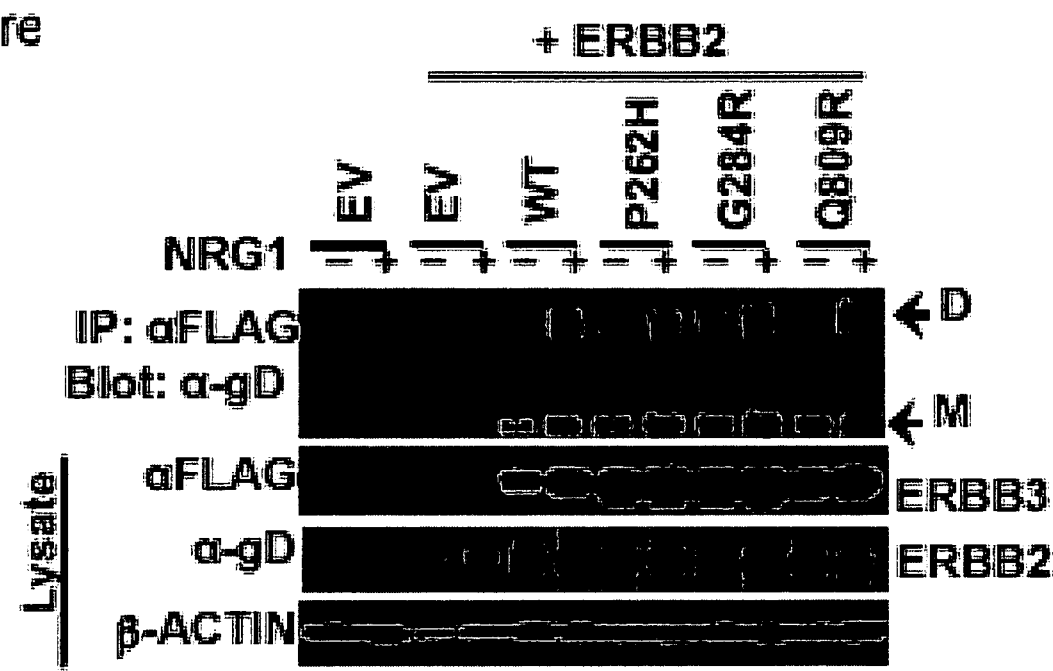


Fig. 19

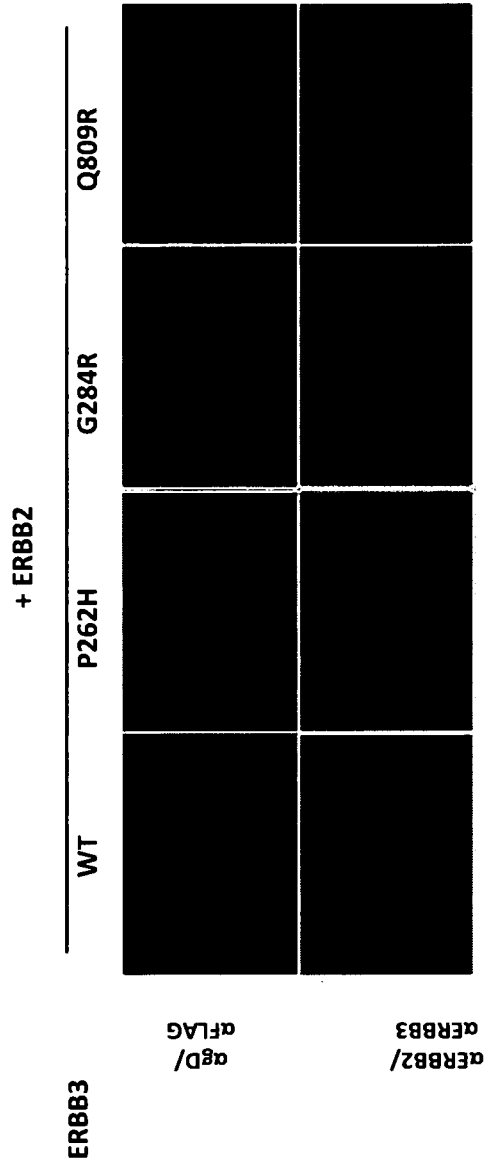


Figure 20

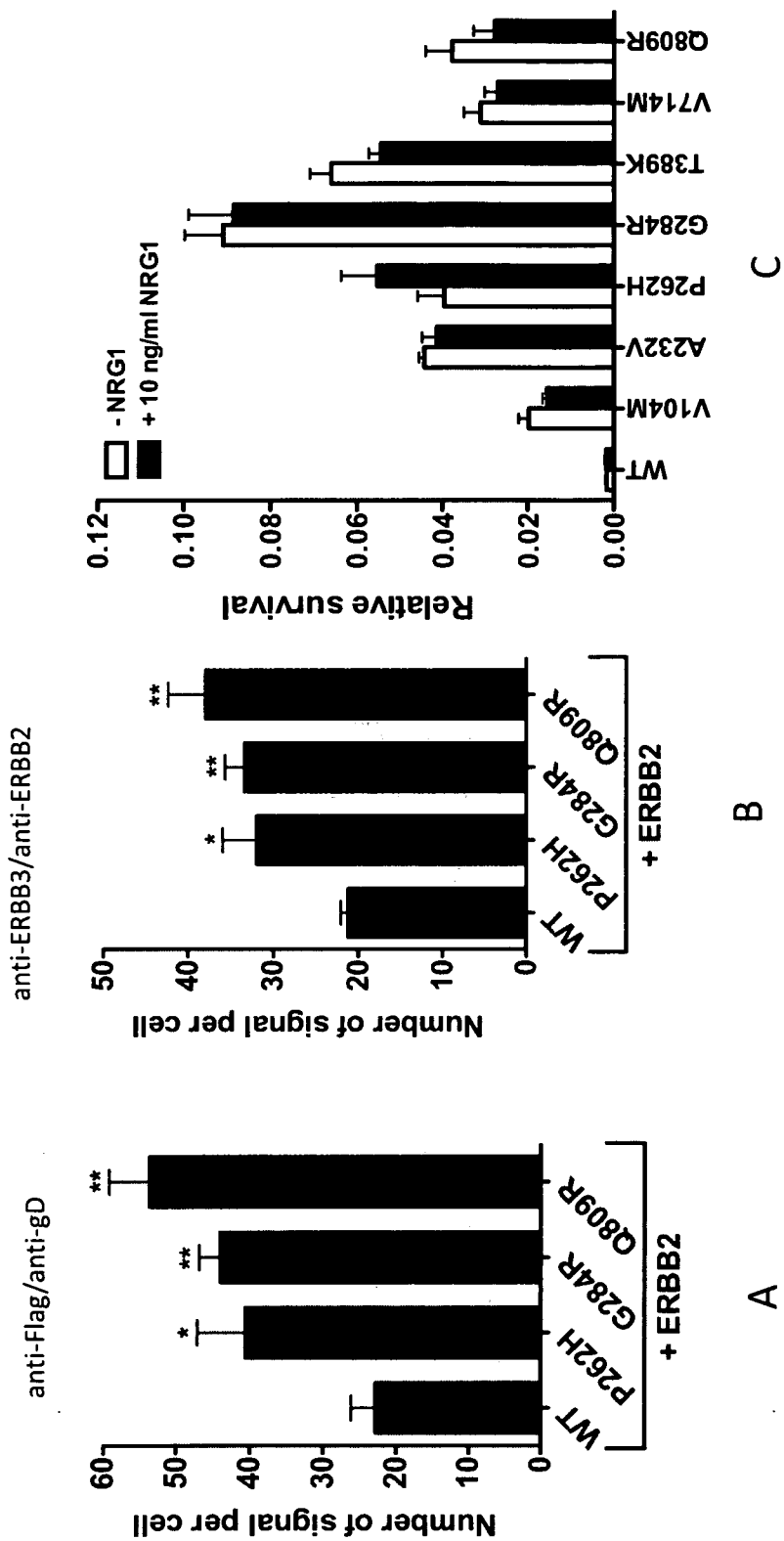


Fig. 21

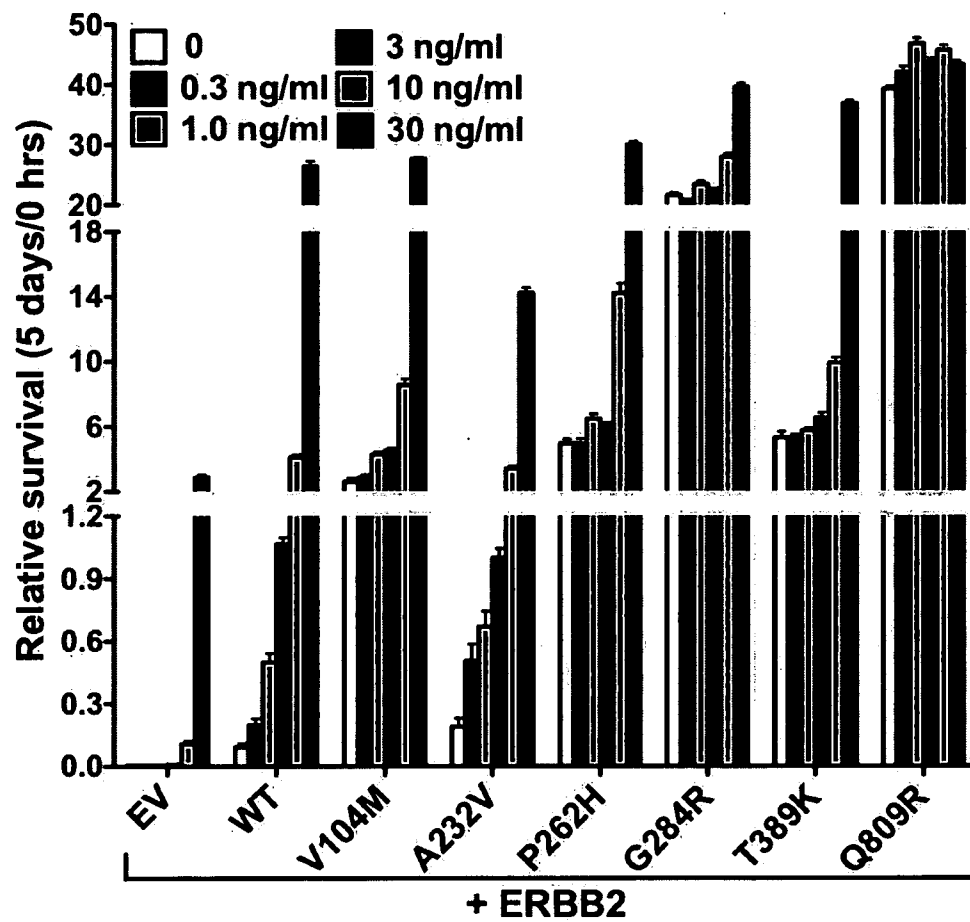


Fig. 22

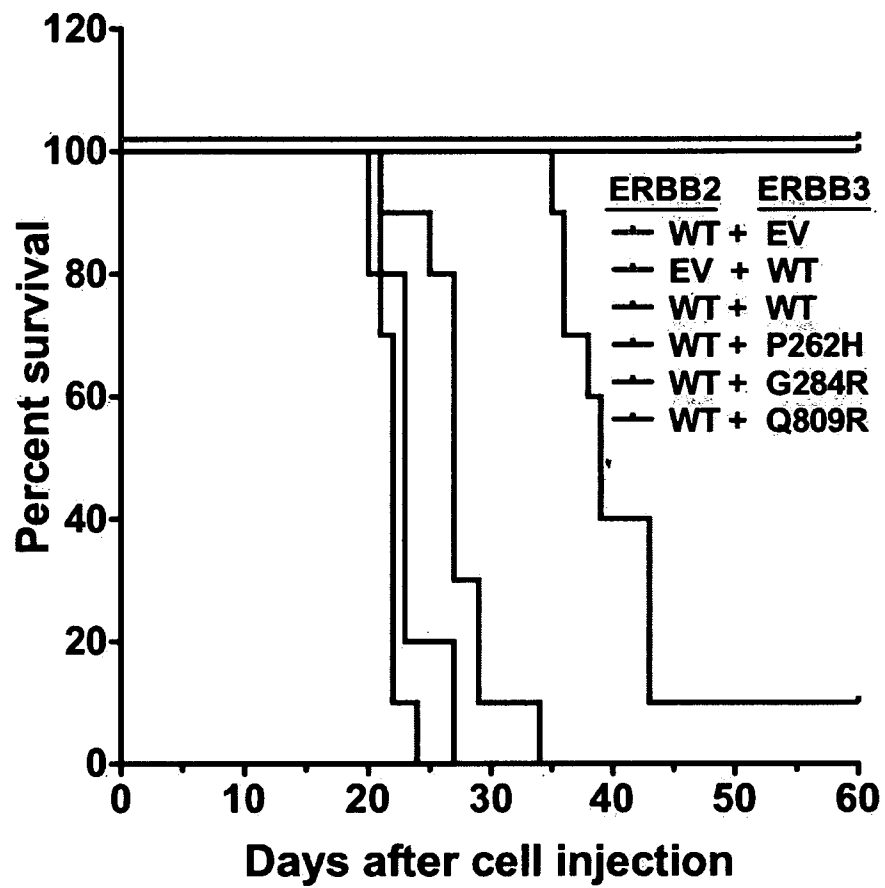


Figure 23

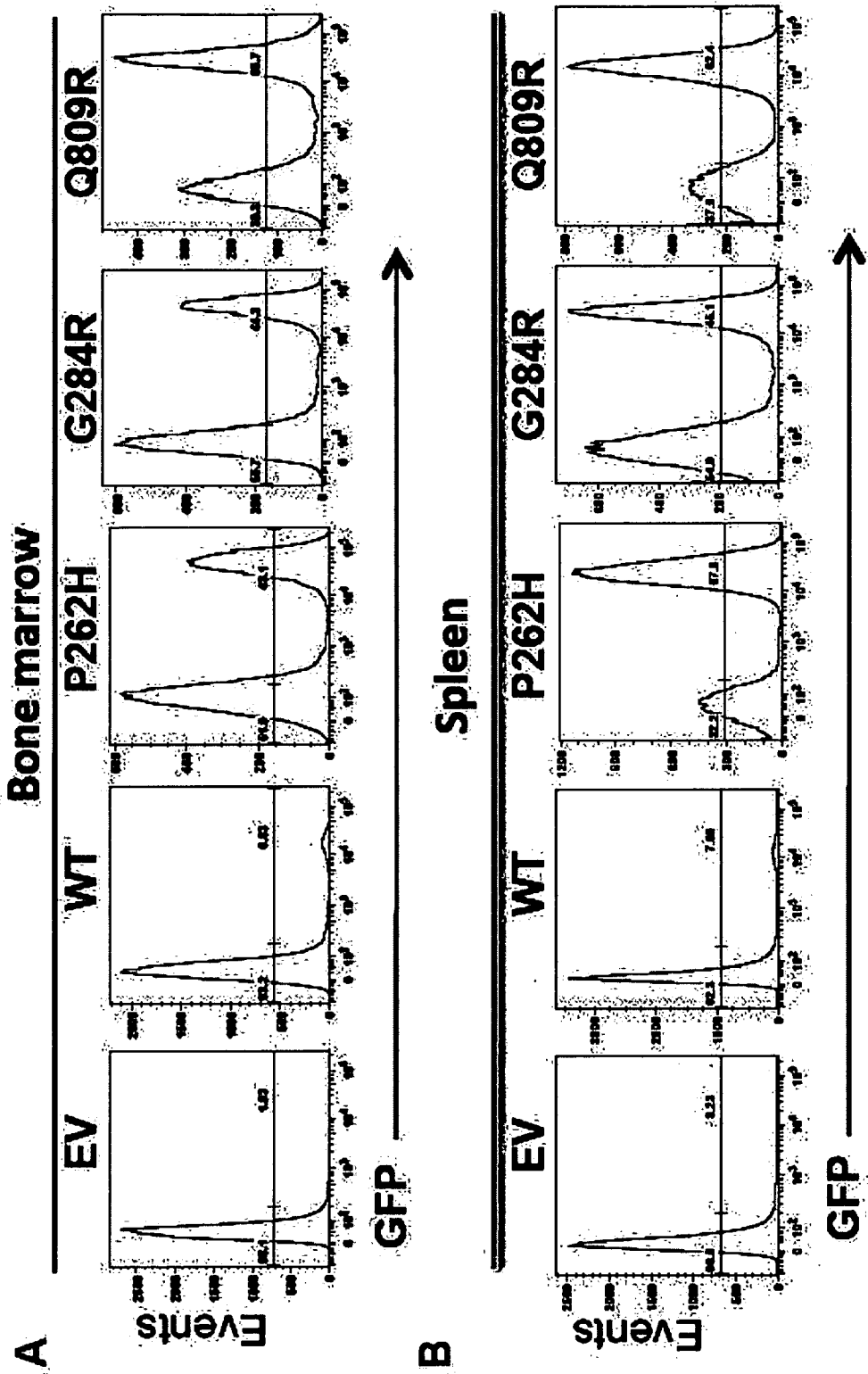


Fig. 24

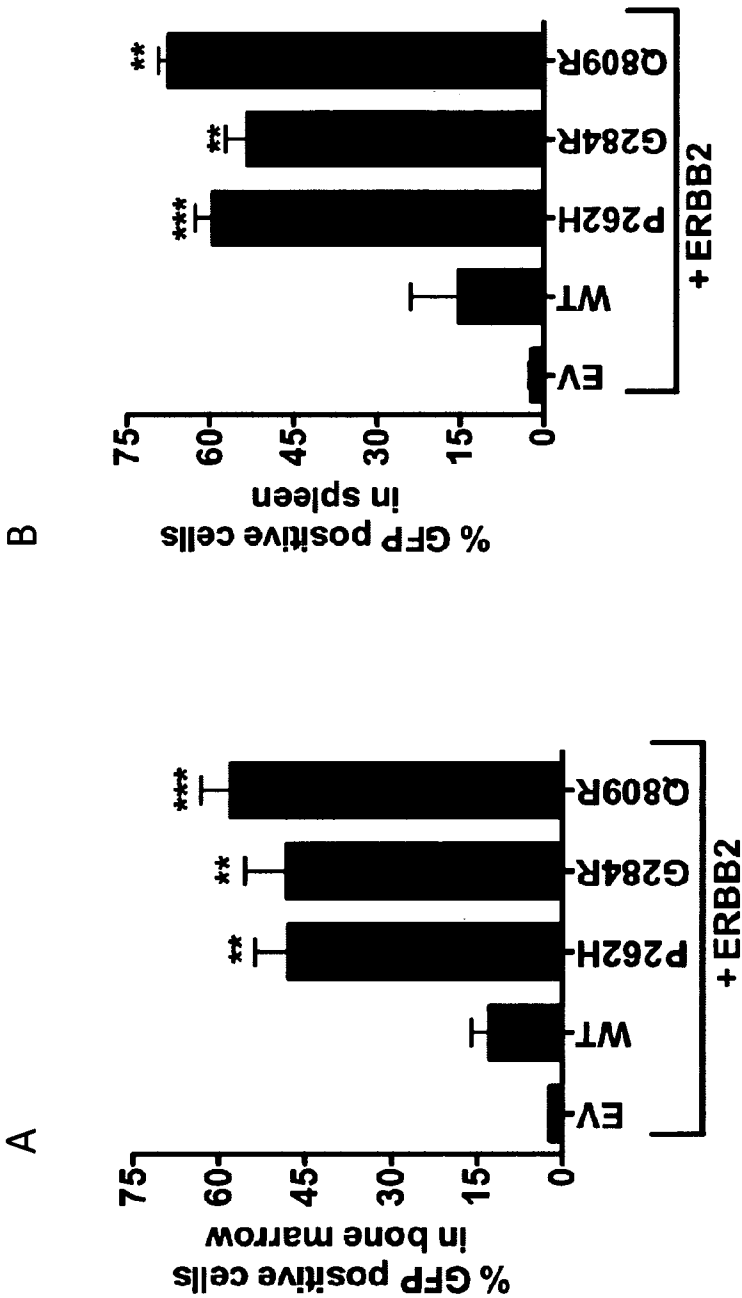


Fig. 25

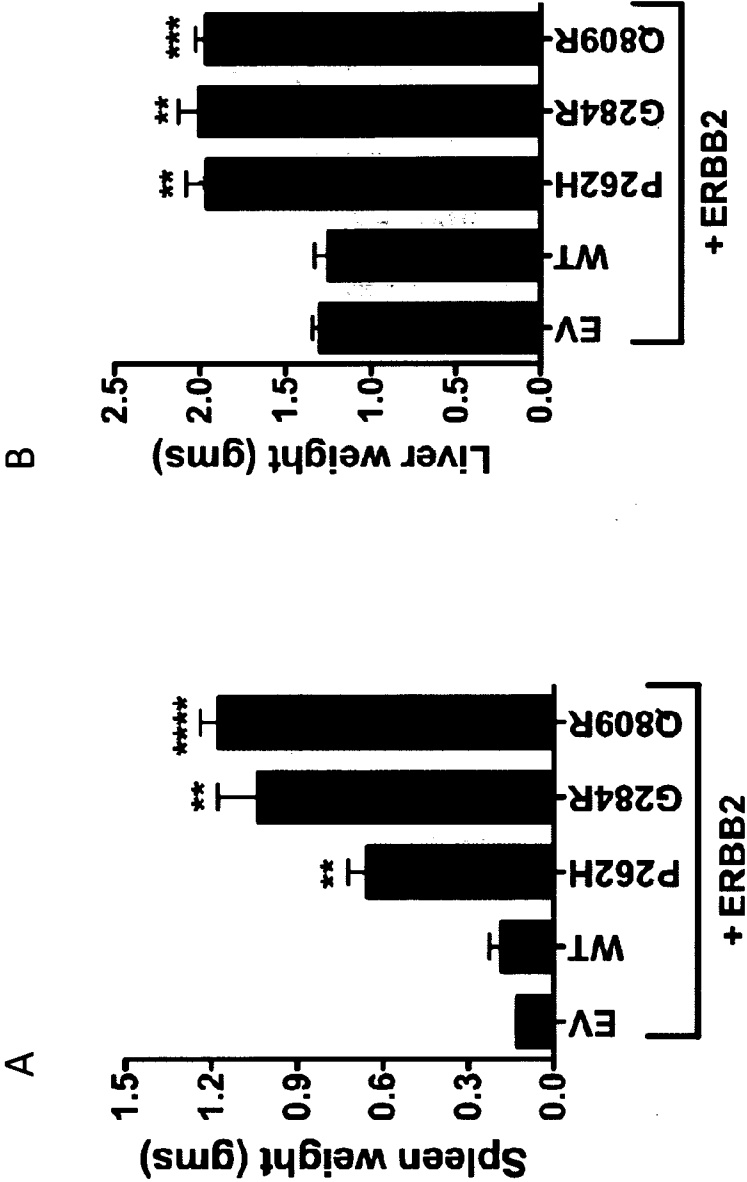


Fig. 26

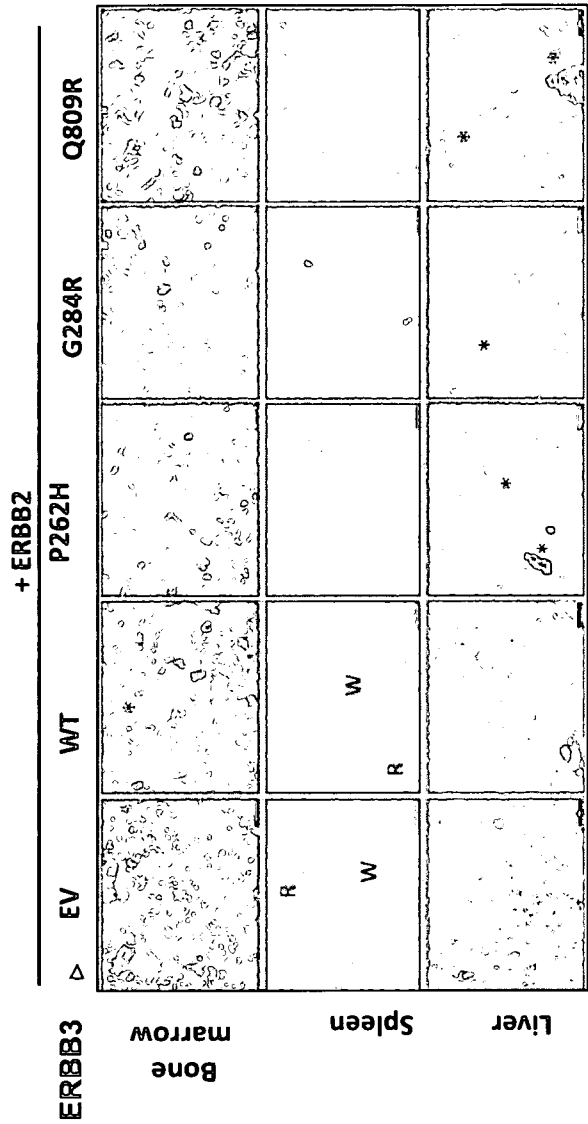


Fig. 27

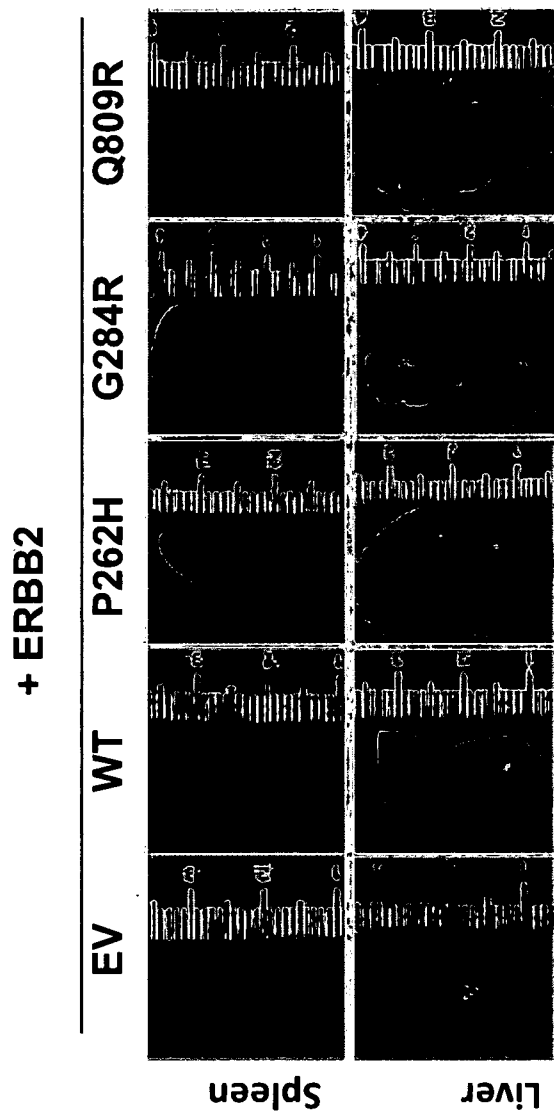


Fig. 28

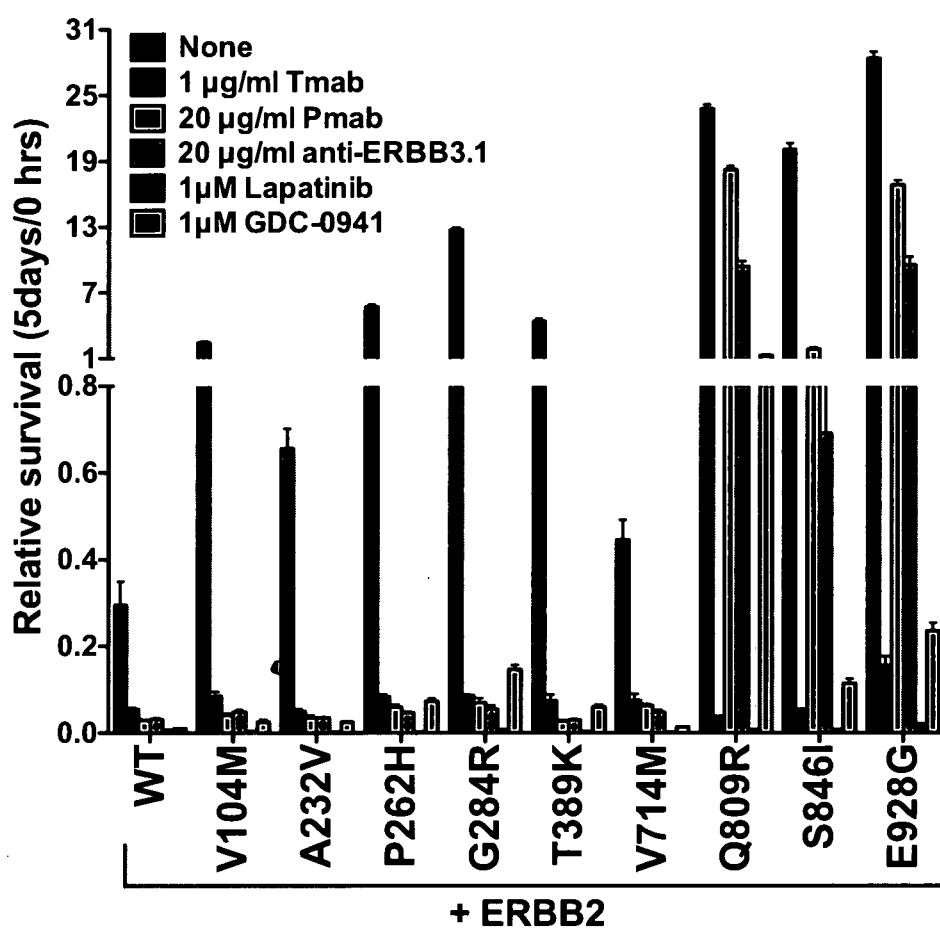


Fig. 29

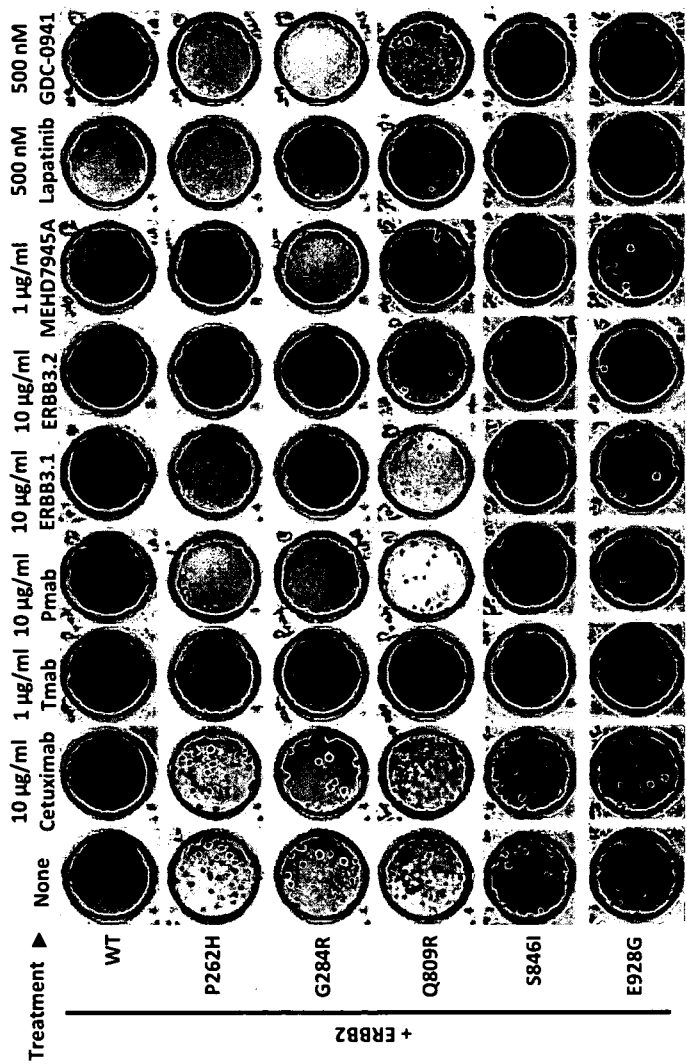


Fig. 30

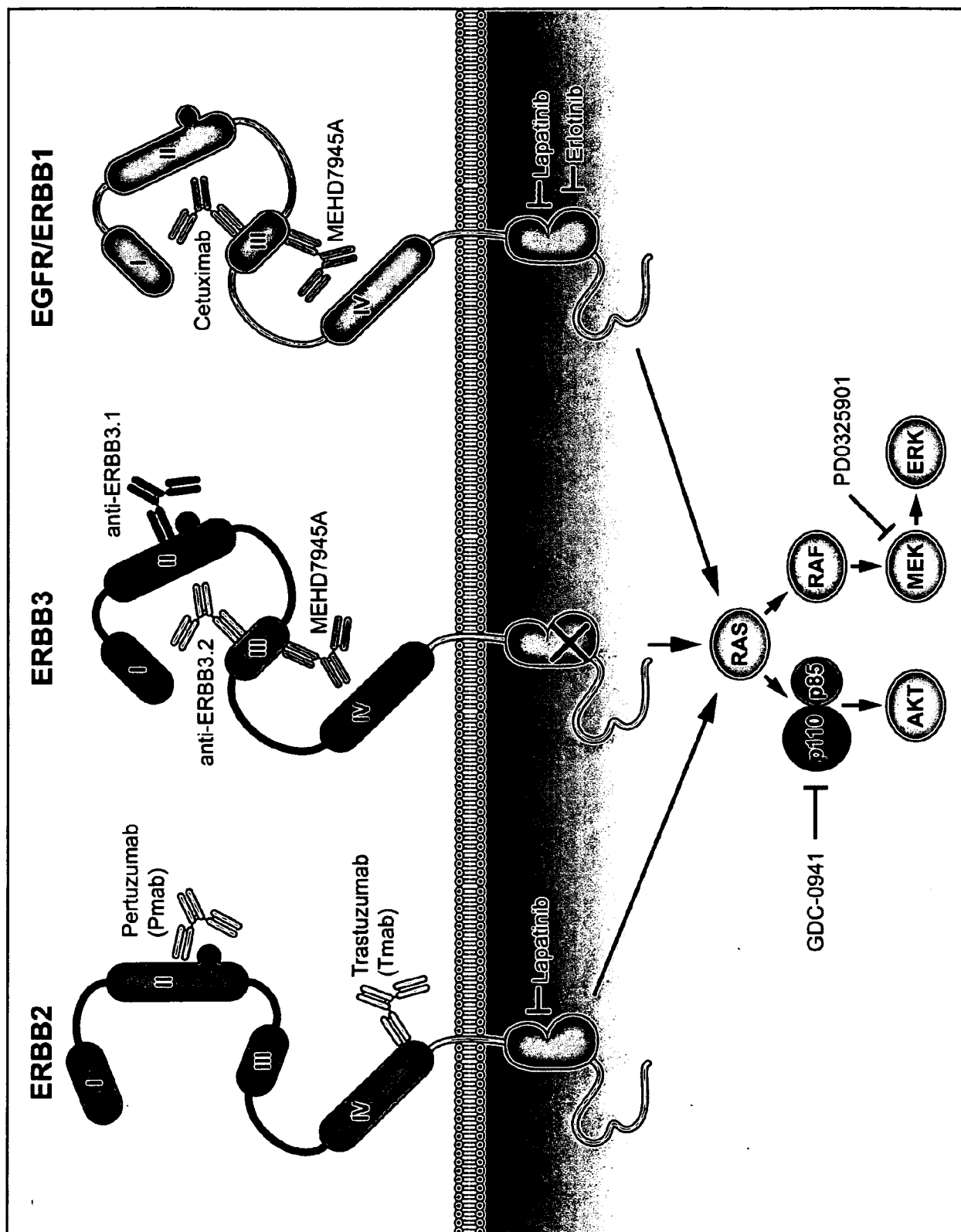
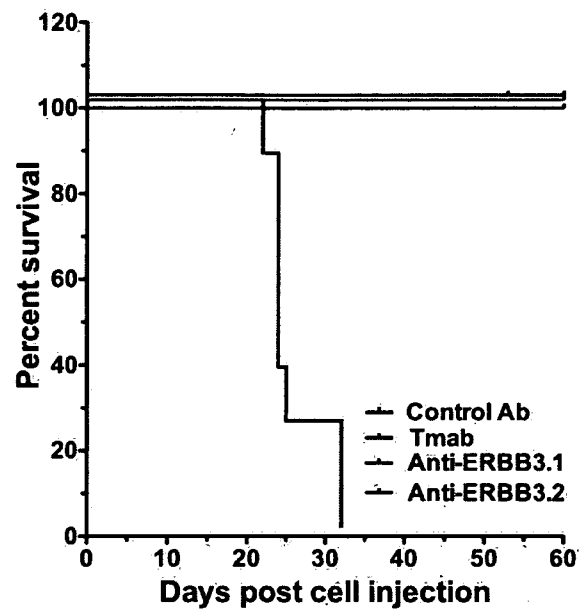


Fig. 31

A



B

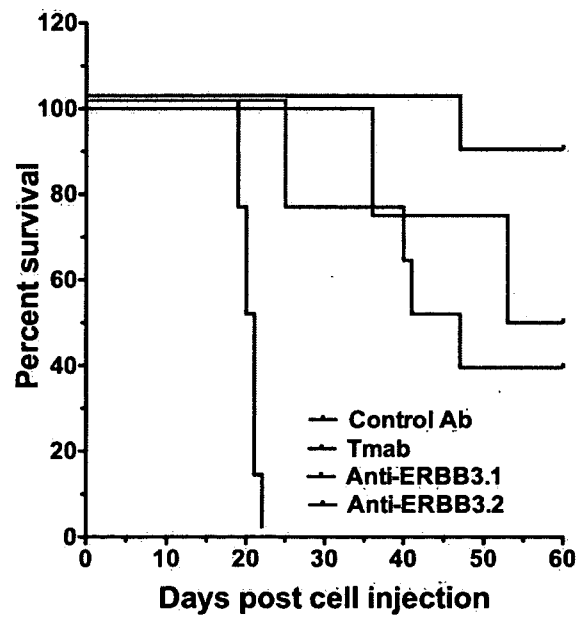
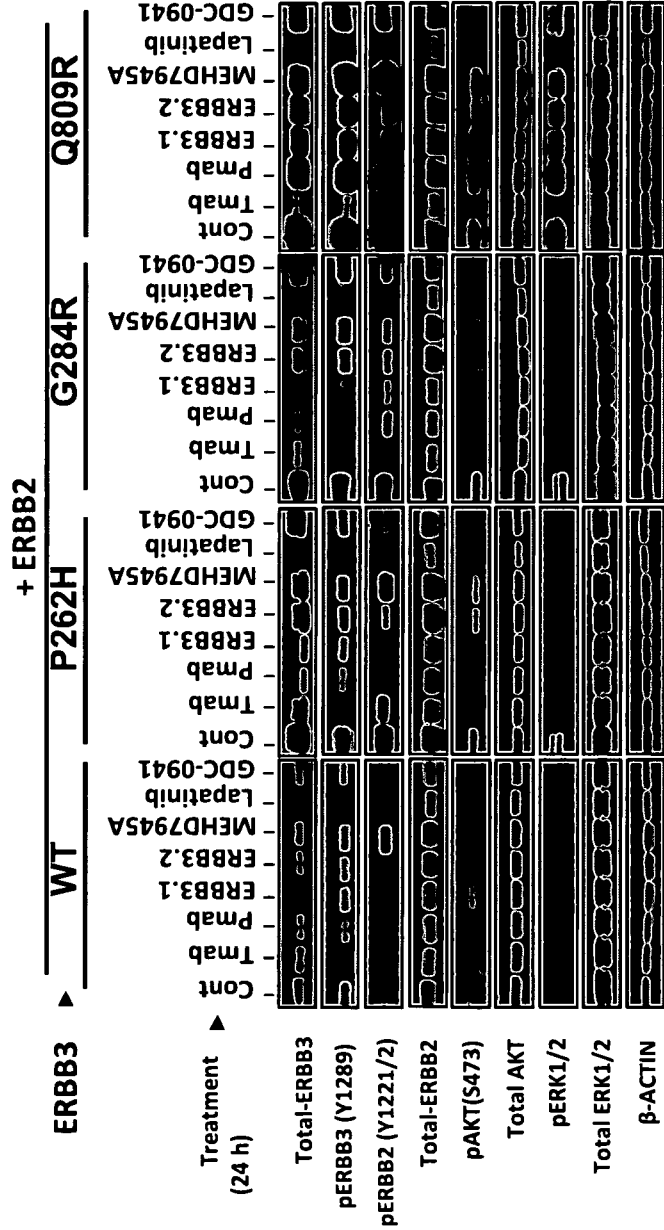


Fig. 32



ERBB3	+ ERBB2		
	WT	P262H	G284R
	Cont	Cont	Cont
	Tmab	Tmab	Tmab
	Pmab	Pmab	Pmab
	ERBB3.1	ERBB3.1	ERBB3.1
	ERBB3.2	ERBB3.2	ERBB3.2
	MEHD7945A	MEHD7945A	MEHD7945A
	Lapatinib	Lapatinib	Lapatinib
	GDC-0941	GDC-0941	GDC-0941
Treatment (8 h)			
Total-ERBB3			
pERBB3 (Y1289)			
pERBB2 (Y1221/2)			
Total-ERBB2			
pAKT(S473)			
Total AKT			
pERK1/2			
Total ERK1/2			
β -ACTIN			

Fig. 34

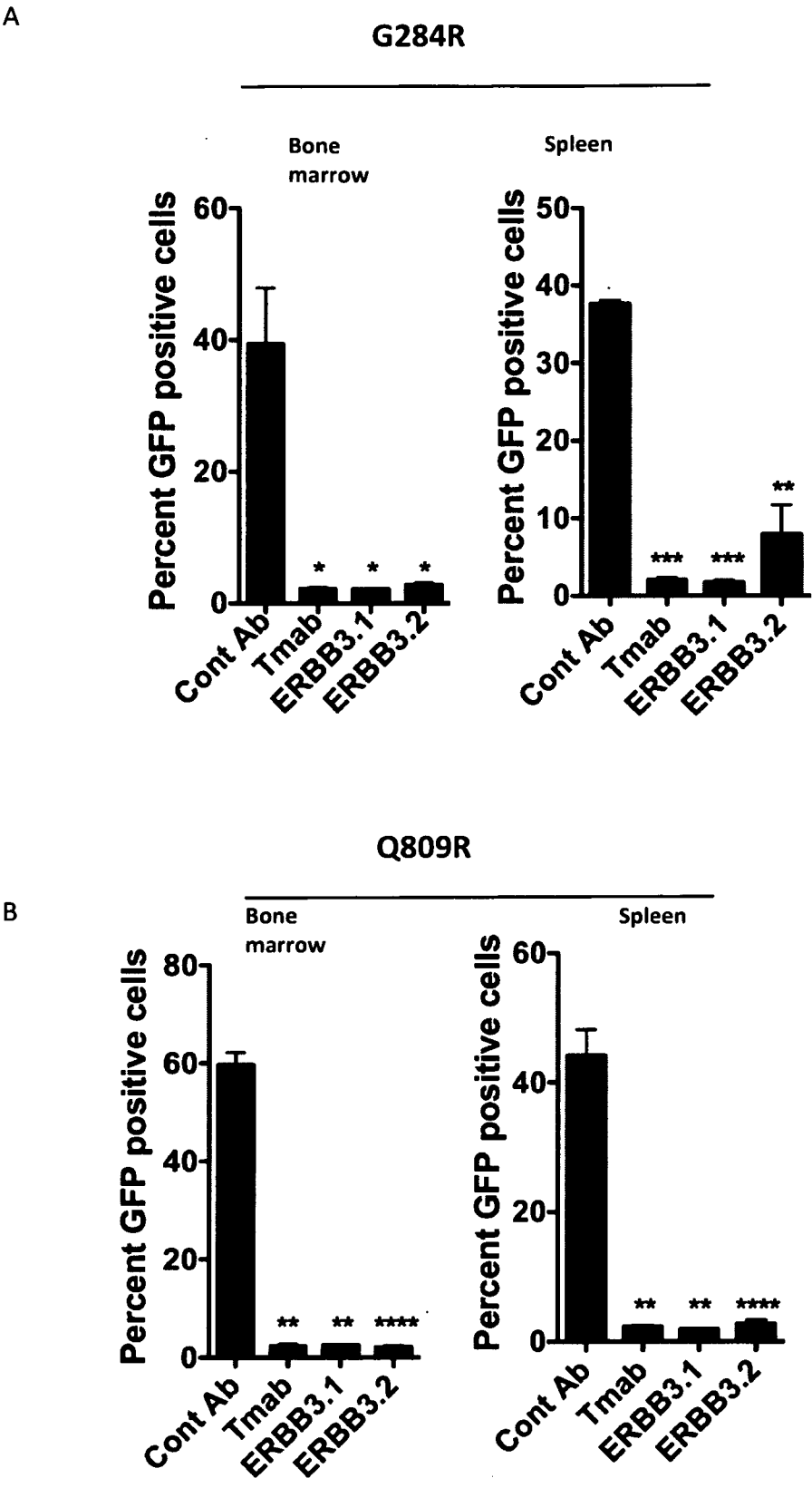


Fig. 35

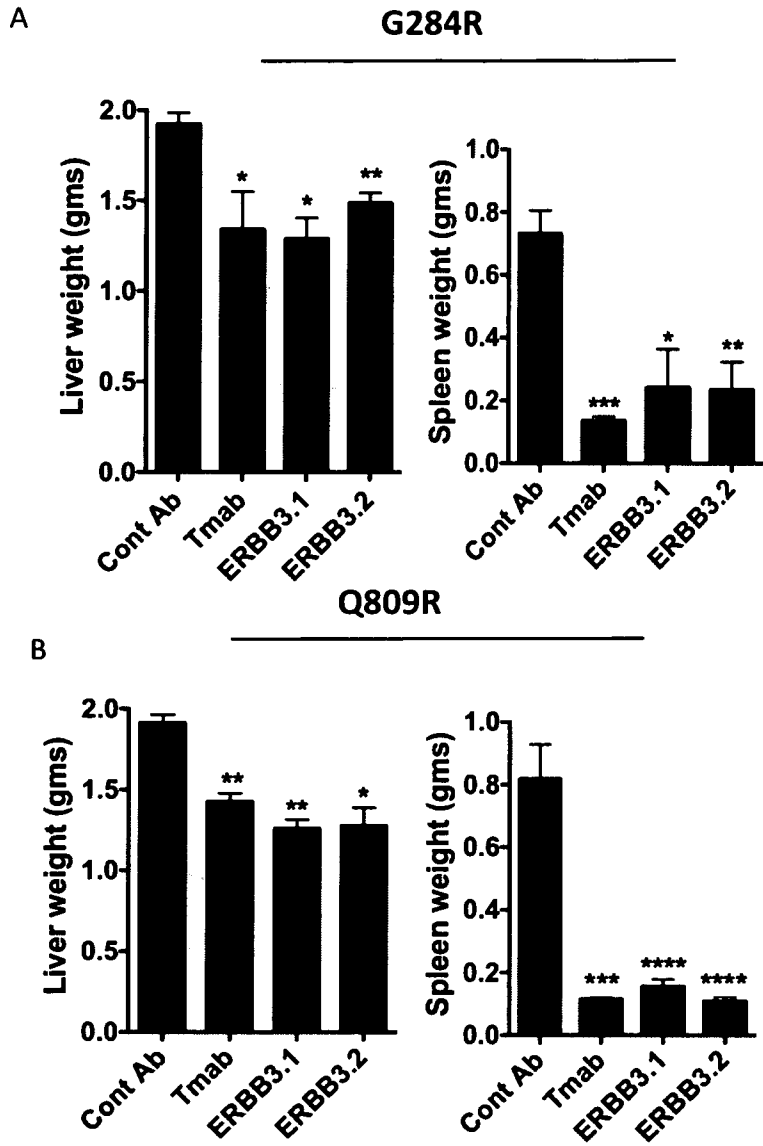


Fig. 36

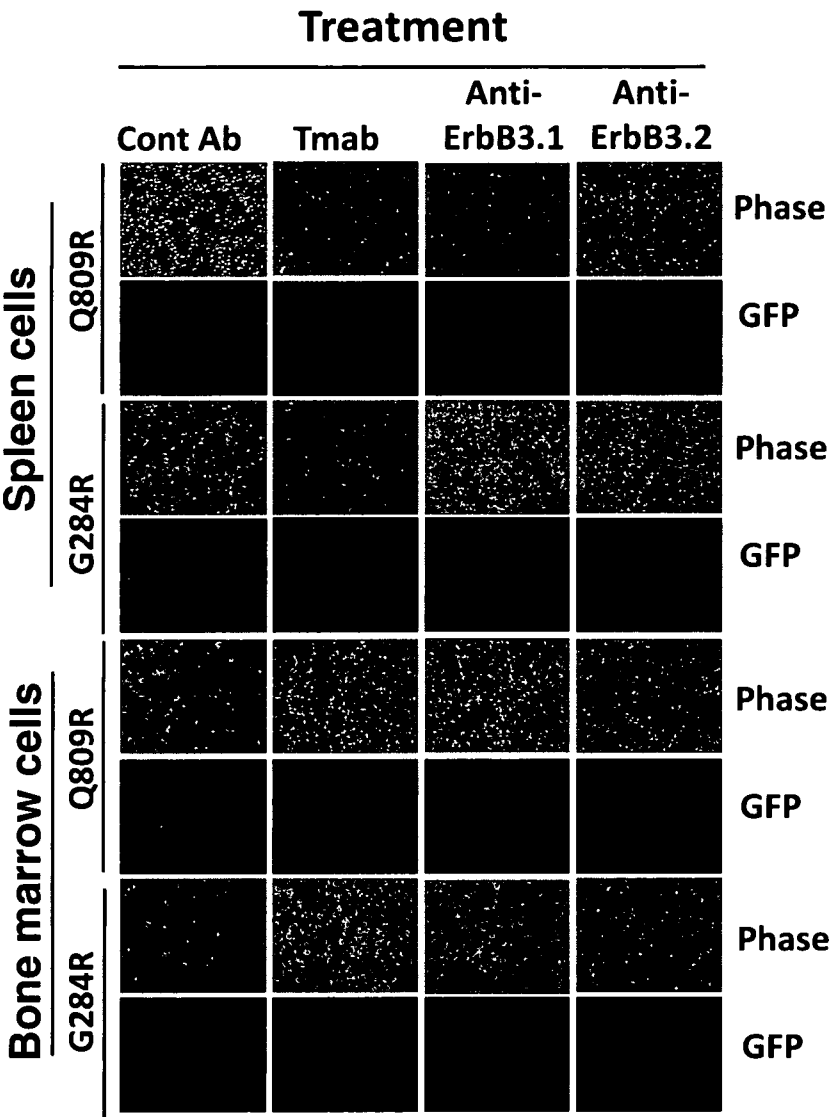
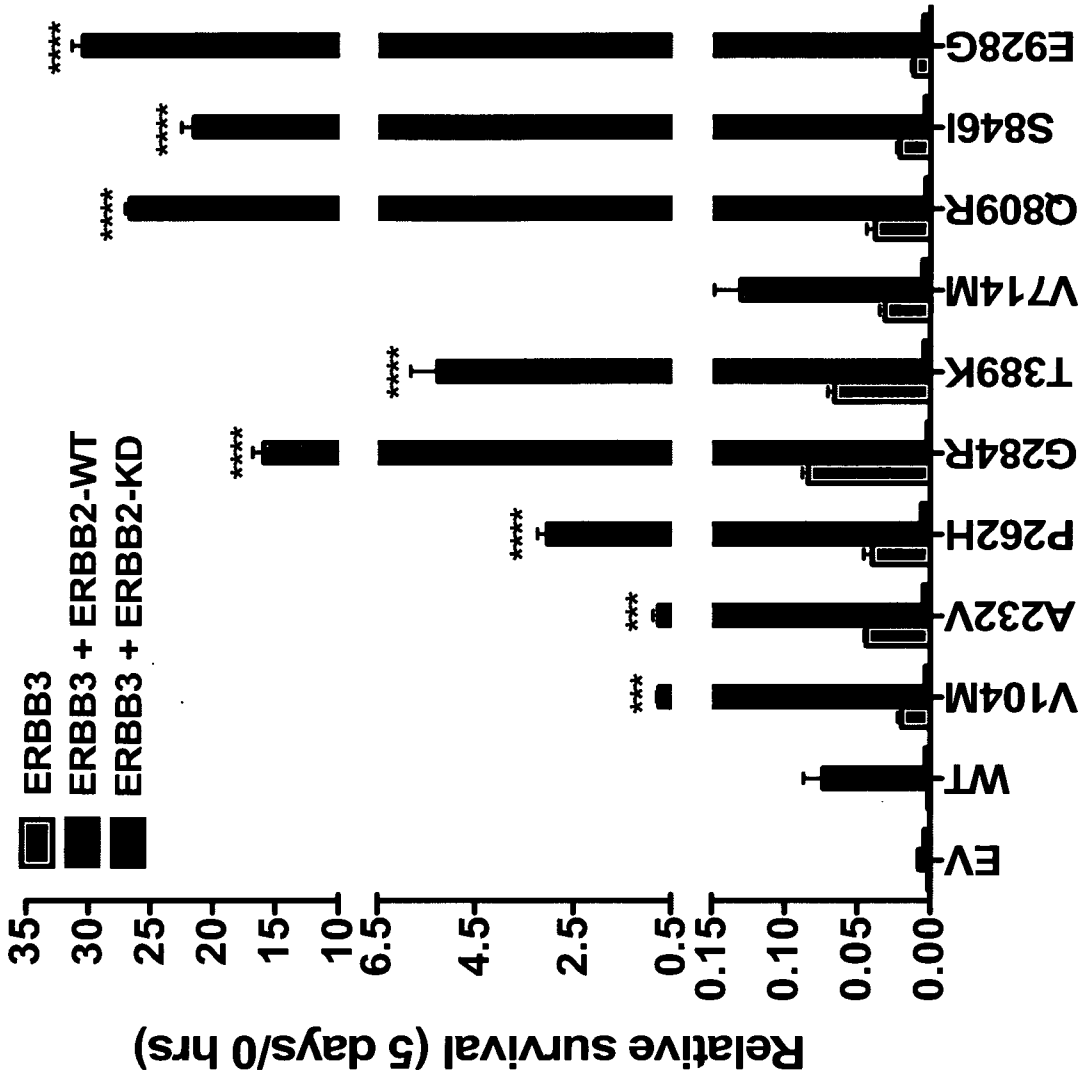


Fig. 37



A

Fig. 37

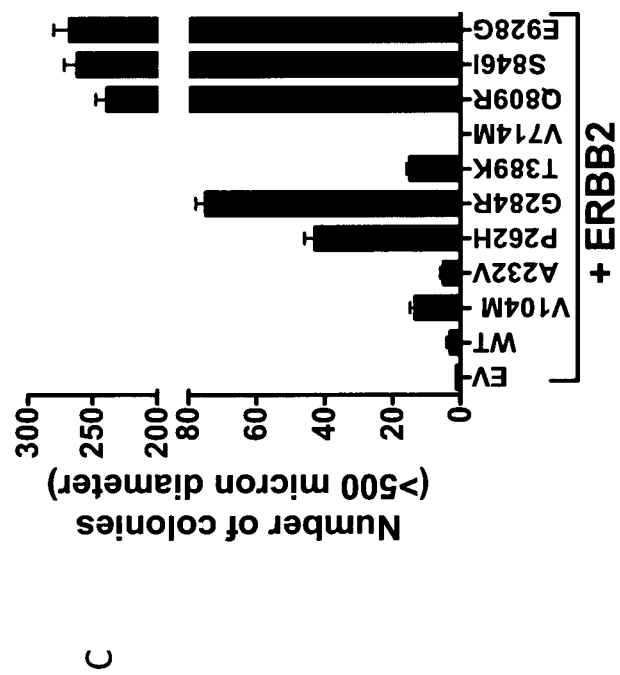
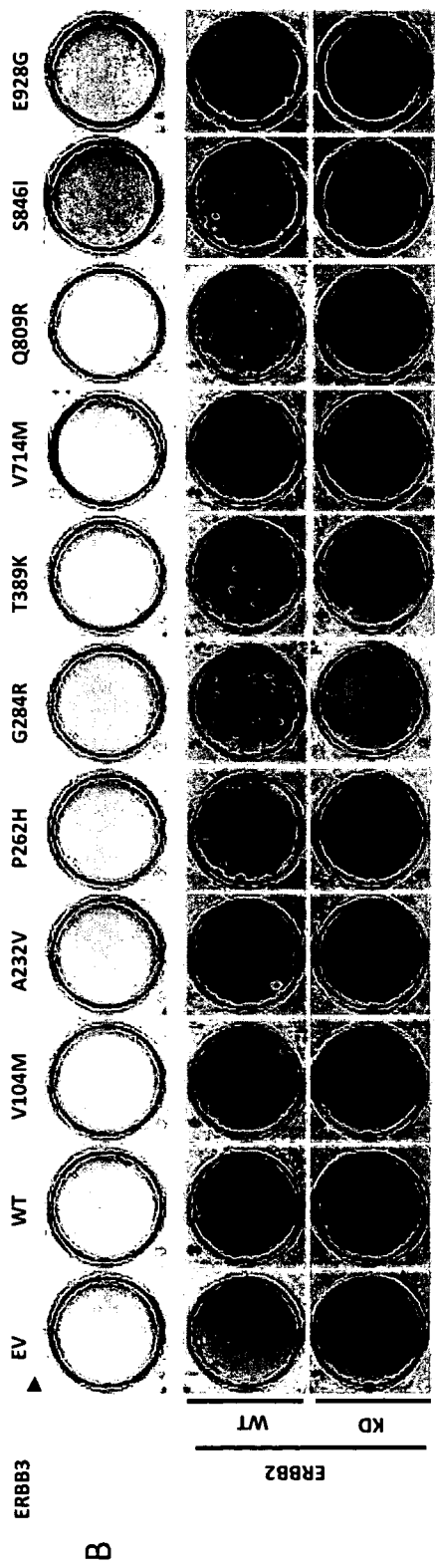


Fig. 37

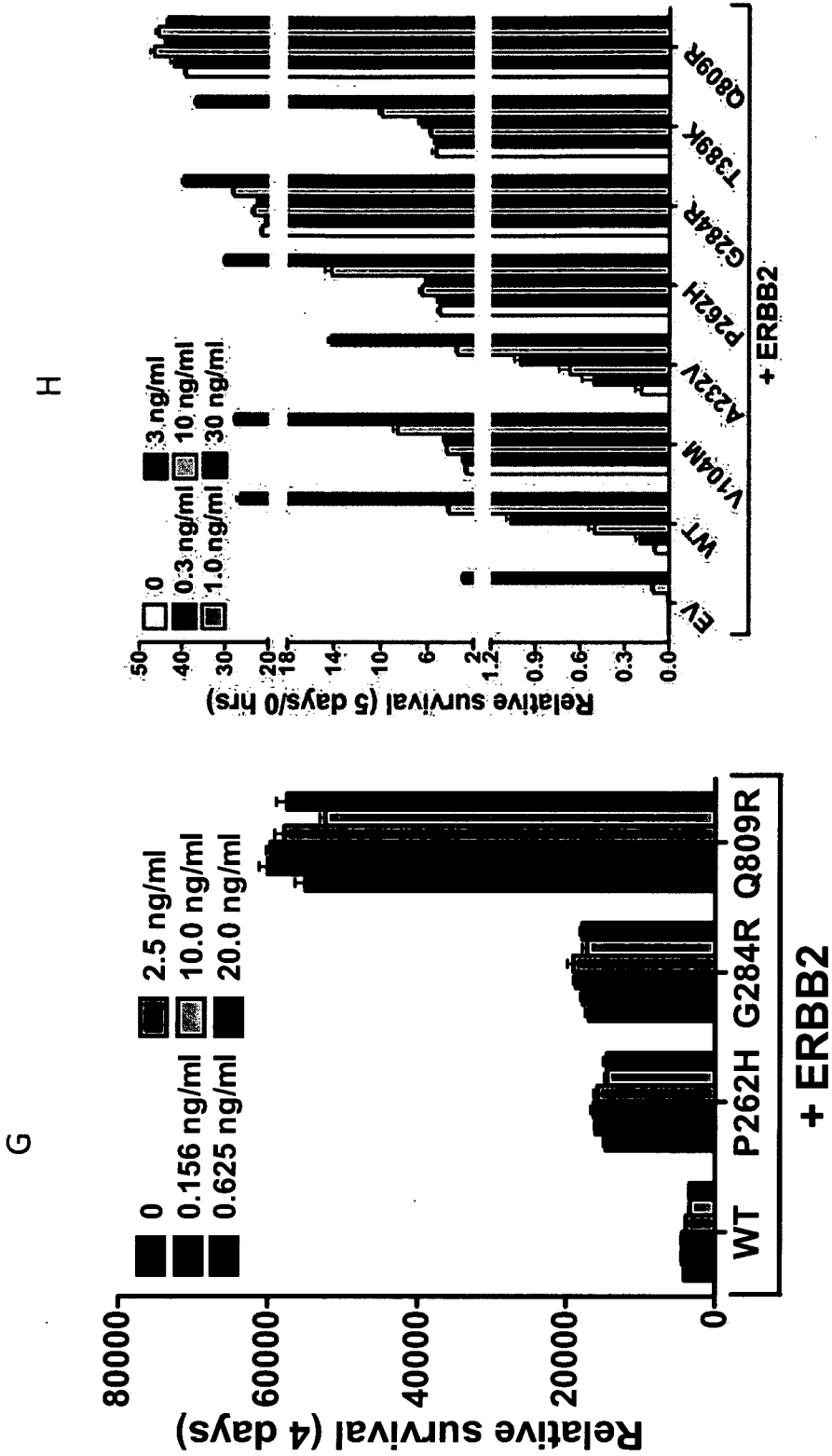


Fig. 38

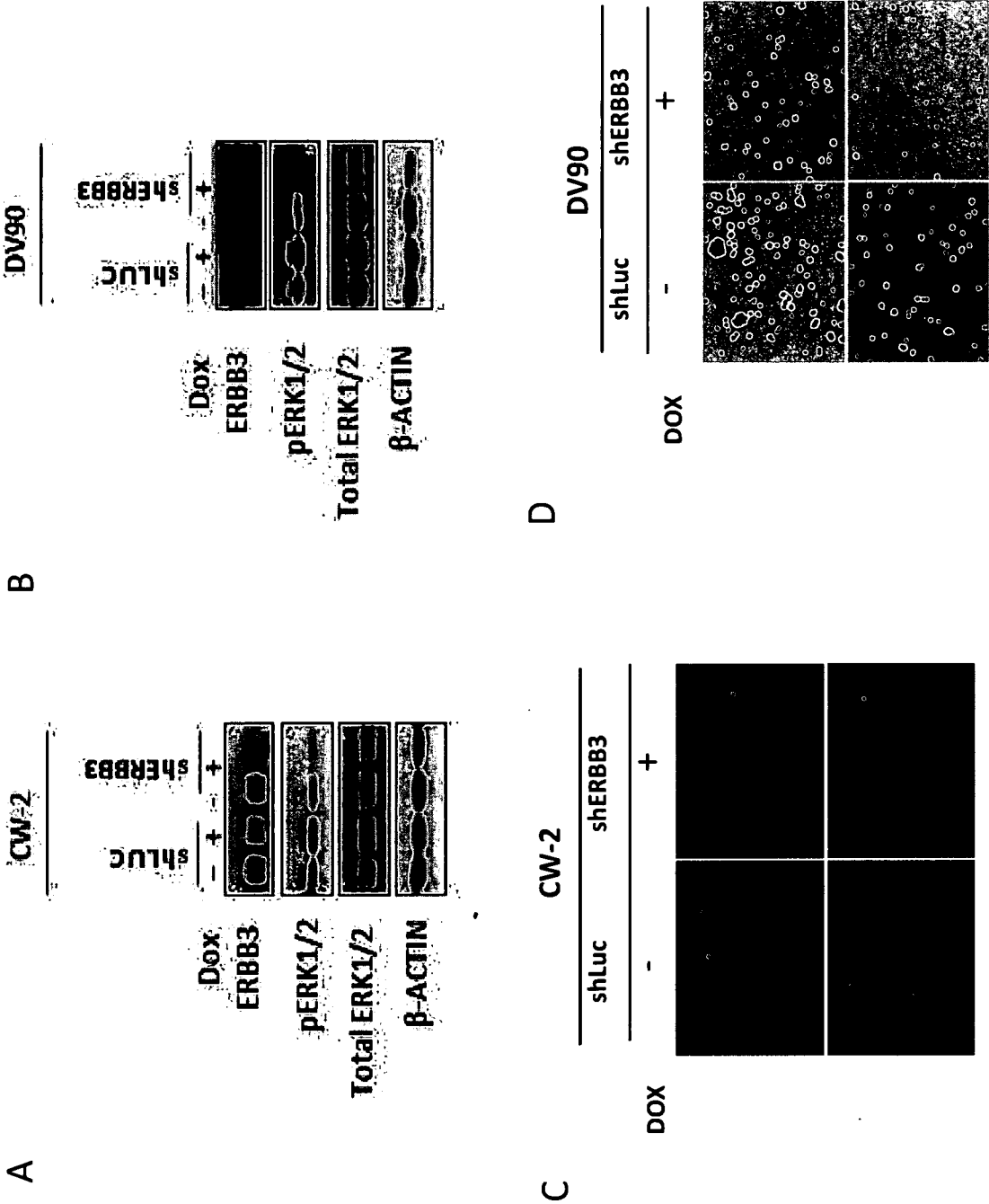


Fig. 38

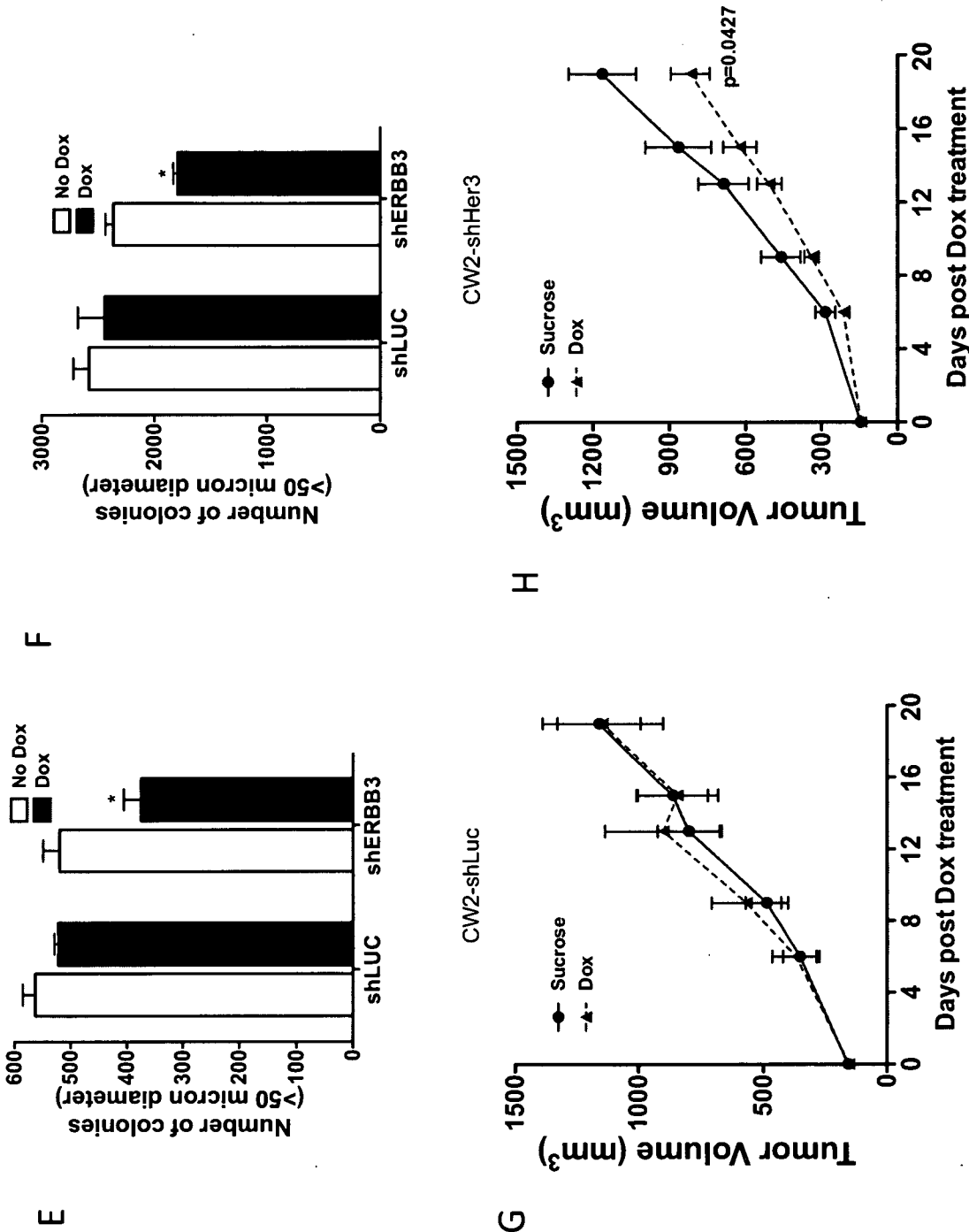


Fig. 38

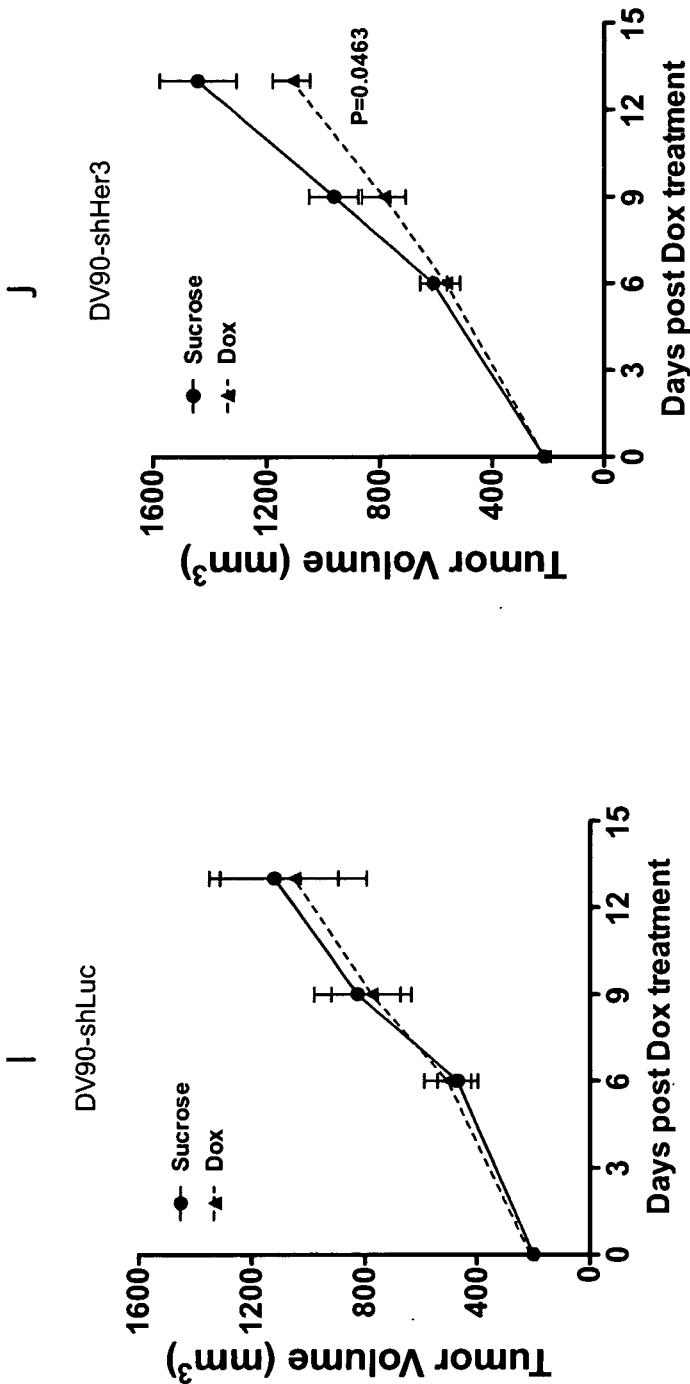


Fig. 39

Atgagggcggaacgacgctctgcaggtgctgggcttgccttttcagcctggcccggggctcc
 M R A N D A L Q V L G L L F S L A R G S 20
 gaggtgggcaactctcaggcagtggtcctgggactctgaatggcctgagtgtagccggc
 E V G N S Q A V C P G T L N G L S V T G 40
 gatgctgagaaccaataaccagacactgtacaagctctacgagaggtgtgaggtggtgatg
 D A E N Q Y Q T L Y K L Y E R C E V V M 60
 gggaaccttgagattgtgctcacgggacacaatgccgacctctccttctgcagtggtt
 G N L E I V L T G H N A D L S F L Q W I 80
 cgagaagtgcagggctatgtcctcgtggccatgaattctctactctaccattgccc
 R E V T G Y V L V A M N E F S T L P L P 100
 aacctccggtggtgaggggacccaggtctacgatgggaagtttgccatcttcgcatg
 N L R V V R G T Q V Y D G K F A I F V M 120
 ttgaactataacaccaactccagccacgctctgcgccagctccgcttgactcagctcacc
 L N Y N T N S S H A L R Q L R L T Q L T 140
 gagattctgtcagggggtgtttatattgagaagaacgataagctttgtcacatggacaca
 E I L S G G V Y I E K N D K L C H M D T 160
 attgactggagggacatcgtgagggaccgagatgctgagatagtggtgaaggacaatggc
 I D W R D I V R D R D A E I V V K D N G 180
 agaactgtccccctgtcatgaggtttgcaagggcgatgctggggctcctggatcagaa
 R S C P P C C H E V C K G R C W G P G S E 200
 gactgccagacattgaccaagaccatctgtgctcctcagtgtaatggtcactgctttggg
 D C Q T L T K T I C A P Q C N G H C F G 220
 cccaaccccaaccagtgctgccatgatgagtggtgggggctgctcaggccctcaggac
 P N P N Q C C H D E C A G G C S G P Q D 240
 acagactgctttgcctgccggcacttcaatgacagtggagcctgtgtacctcgctgtcca
 T D C F A C R H F N D S G A C V P R C P 260
 cagcctctgtctacaacaagctaactttccagctggaaccaatccccacaccaagtat
 Q P L V Y N K L T F Q L E P N P H T K Y 280
 cagtatggaggagtttgtgtagccagctgtcccccataactttgtgtgatcaaacatcc
 Q Y G G V C V A S C P H N F V V D Q T S 300
 tgtgtcagggcctgtcctcctgacaagatggaagtagataaaaatgggctcaagatgtgt
 C V R A C P P D K M E V D K N G L K M C 320
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 E P C G G L C P K A C E G T G S G S R F 340
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 Q T V D S S N I D G F V N C T K I L G N 360
 ctggactttctgatcaccggcctcaatggagaccctggcacaagatccctgccctggac
 L D F L I T G L N G D P W H K I P A L D 380
 ccagagaagctcaatgtcttccggacaggtacgggagatcacaggttacctgaacatccag
 P E K L N V F R T V R E I T G Y L N I Q 400
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 S W P P H M H N F S V F S N L T T I G G 420
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 R S L Y N R G F S L L I M K N L N V T S 440
 ctgggcttccgatccctgaaggaaattagtgctggcggtatctatataagtccaatagg
 L G F R S L K E I S A G R I Y I S A N R 460
 cagctctgtctaccactctttgaactggaccaaggtgcttcgggggcctacggaagag
 Q L C Y H H S L N W T K V L R G P T E E 480
 cgactagacatcaagcataatcggccgcgcagagactgctggcagagggcgaagtgtgt
 R L D I K H N R P R R D C V A E G K V C 500
 gaccactgtgctcctctgggggatgctggggccaggccctggtcagtgttgcctgt
 D P L C S S G G C W G P G P G Q C L S C 520

Fig. 39 (continued)

cgaaattatagccgaggaggtgtctgtgtgacccactgcaacttttctgaatggggagcct 540
R N Y S R G G V C V T H C N F L N G E P
cgagaatttgcccatgaggccgaatgcttctcctgccaccggaatgccaacccatggag 560
R E F A H E A E C F S C H P E C Q P M E
ggcactgccacatgcaatggctcggtctgtgatacttgtgtcaatgtgccatttttca 580
G T A T C N G S G S D T C A Q C A H F R
gatgggccccactgtgtgagcagctgcccccatggagtcctaggtgccaagggcccaatc 600
D G P H C V S S C P H G V L G A K G P I
tacaagtaccagatgttcagaatgaatgtcgccctgccatgagaactgcacccagggg 620
Y K Y P D V Q N E C R P C H E N C T Q G
tgtaaaggaccagagcttcaagactgtttaggacaaacactgggtgtgatcggcaaaacc 640
C K G P E L Q D C L G Q T L V L I G K T
catctgacaatggctttgacagtgatagcaggattggtagtgattttcatgatgctgggc 660
H L T M A L T V I A G L V V I F M M L G
ggcacttttctctactggcgtgggcgcgggattcagaataaaagggtatgaggcgatac 680
G T F L Y W R G R R I Q N K R A M R R Y
ttggaacggggtgagagcatagagcctctggaccccagtgagaaggctaacaaagtcttg 700
L E R G E S I E P L D P S E K A N K V L
gccagaatcttcaaaagagacagagctaaggaagcttaaaatgtgctcggtgtcttt 720
A R I F K A E T E L R K L K V L G S G V F
ggaactgtgcacaaaggagtggtggtccctgagggtgaatcaatcaagattccagtctgc 740
G T V H K G V W I P E G E S I K I P V C
attaaagtcattgaggacaagagtggtgacggcagagttttcaagctgtgacagatcatatg 760
I K V I E D K S G R Q S F Q A V T D H M
ctggccattggcagcctggaccatgcccacattgtaaggctgctgggactatgcccgagg 780
L A I G S L D H A H I V R L L G L C P G
tcactctctgcagcttgtcactcaatatattgcctctgggttctctgctggatcatgtgaga 800
S S L Q L V T Q Y L P L G S L L D H V R
caacaccggggggcactggggccaacagctgctgtcactggggagtagacaaattgccaa 820
Q H R G A L G P Q L L L N W G V Q I A K
ggaatgtactaccttgaggaacatggtatggtgcatagaaacctggctgcccgaacgtg 840
G M Y Y L E E H G M V H R N L A A R N V
ctactcaagtcacccagtcaggttcaggtggcagatttttggtgtggctgacctgctgct 860
L L K S P S Q V Q V A D F G V A D L L P
cctgatgataagcagctgctatacagtggagccaagactccaattaagtggatggccctt 880
P D D K Q L L Y S E A K T P I K W M A L
gagagtatccactttgggaaatacacacaccagagtgatgtctggagctatggtgtgaca 900
E S I H F G K Y T H Q S D V W S Y G V T
gtttgggagttgatgaccttcggggcagagccctatgcagggtacgattggctgaagta 920
V W E L M T F G A E P Y A G L R L A E V
ccagacctgctagagaagggggagcggttggcacagccccagatctgcacaattgatgtc 940
P D L L E K G E R L A Q P Q I C T I D V
tacatggtgatggtcaagtgttgatgattgatgagaacattcgcccaacctttaaagaa 960
Y M V M V K C W M I D E N I R P T F K E
ctagccaatgagttcaccaggatggcccagagaccaccacgggtatctggtcataaagaga 980
L A N E F T R M A R D P P R Y L V I K R
gagagtgggcctggaatagcccctggggccagagccccatggtctgacaaacaagaagcta 1000
E S G P G I A P G P E P H G L T N K K L
gaggaagtagagctggagccagaactagacctagacctggaagcagaggaggac 1020
E E V E L E P E L D L D L D L E A E E D
aacctggcaaccaccacactgggtccgcccctcagcctaccagttggaacacttaatcgg 1040
N L A T T T L G S A L S L P V G T L N R

Fig. 39 (continued)

ccacgtggggagccad^{agg}cttttaagtccatcatctggatacatgcccatgaaccaggg
 P R G S Q ^S L L S P S S G Y M P M N Q G 1060
 aatcttggggagtccttgccaggagtcctgcagtttctgggagcagtgaaacggcgccccgt
 N L G E S C Q E S A V S G S S E R C P R 1080
 ccagtctctctacacccaatgccac^{cg}gggatgcctggcatcagagtcacagaggggcat
 P V S L H P M P ^R G C L A S E S S E G H 1100
 gtaacaggctctgaggctgagctccaggagaaagtgtcaatgtgtaggagccggagcagg
 V T G S E A E L Q E K V S M C R S R S R 1120
 agccggagccacggccacgcggagatagcgctaccattcccagcgccacagtcctgctg
 S R S P R P R G D S A Y H S Q R H S L L 1140
 actcctgttaccctactctccccacccgggttagaggaagaggatgtcaacgggttatgtc
 T P V T P L S P P G L E E E D V N G Y V 1160
 atgccagat^{aca}cacctcaaagggtactccctcctcccggaaggcaccctttcttcagt
 M P D ^T H L K G T P S S R E G T L S S V 1180
 ggtctcagttctgtcctgggtactgaagaagaagatgaag^{gat}gaggagtatgaatacatg
 G L S S V L G T E E E D E ^D E E Y E Y M 1200
 aaccggaggagaaggcacagtcacacctcatccccctaggccaagttcccttgag^{gag}ctg
 N R R R R H S P P H P P R P S S L E ^E L 1220
 gggtatgagtacatggatgtggggtcagacctcagtcctctctgggcagcacacagagt
 G Y E Y M D V G S D L S A S L G S T Q S 1240
 tgccactccacctgtacccatcatgccactgcaggcacaactccagatgaagactat
 C P L H P V P I M P T A G T T P D E D Y 1260
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 E Y M N R Q R D G G G P G G D Y A A M G 1280
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 caggccccccatgtccattatgcccgccataaaaactctacgtagcttagaggctacagac
 Q A P H V H Y A R L K T L R S L E A T D 1320
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 S A F D N P D Y W H S R L F P K A N A Q 1340
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 R T - (SEQ ID NO: 231)