

FIG. 1

Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, hemi-hydrate, Form H0.5-4

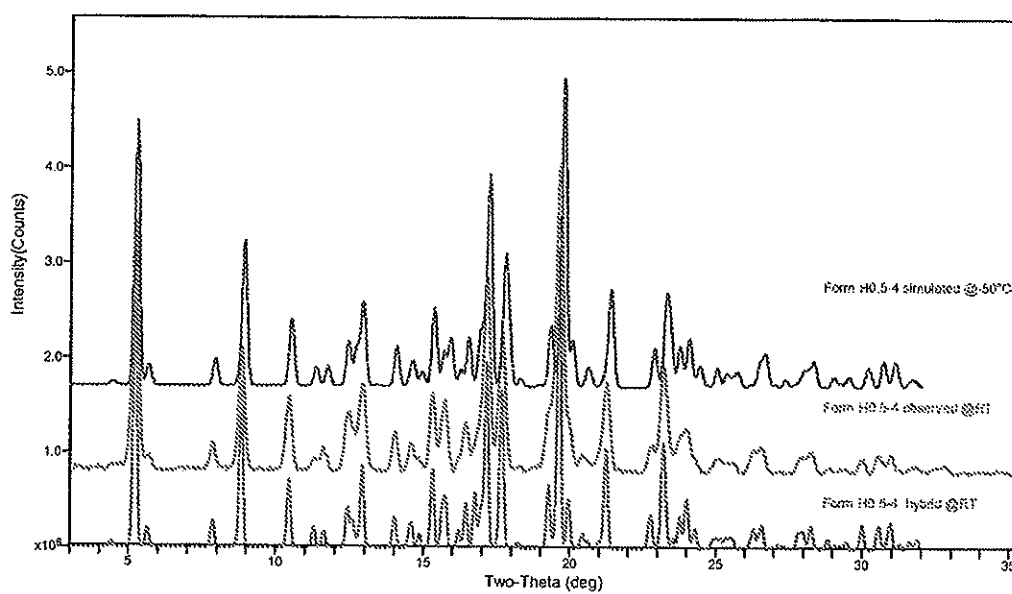


FIG. 2

Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, free base, Form N-2

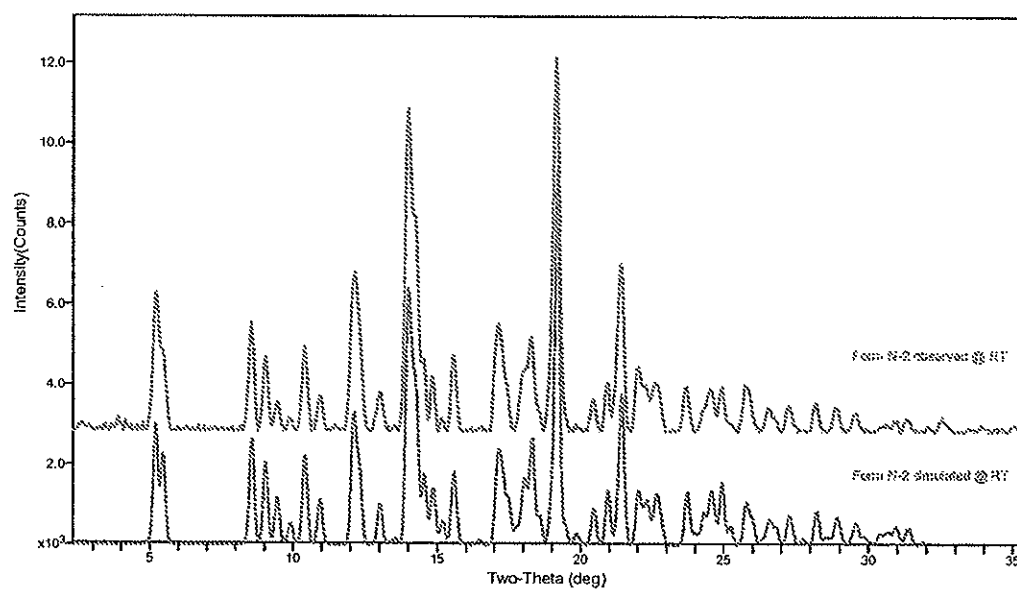


FIG. 3

Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, 1.75 moles H₂O, Form H1.75-5

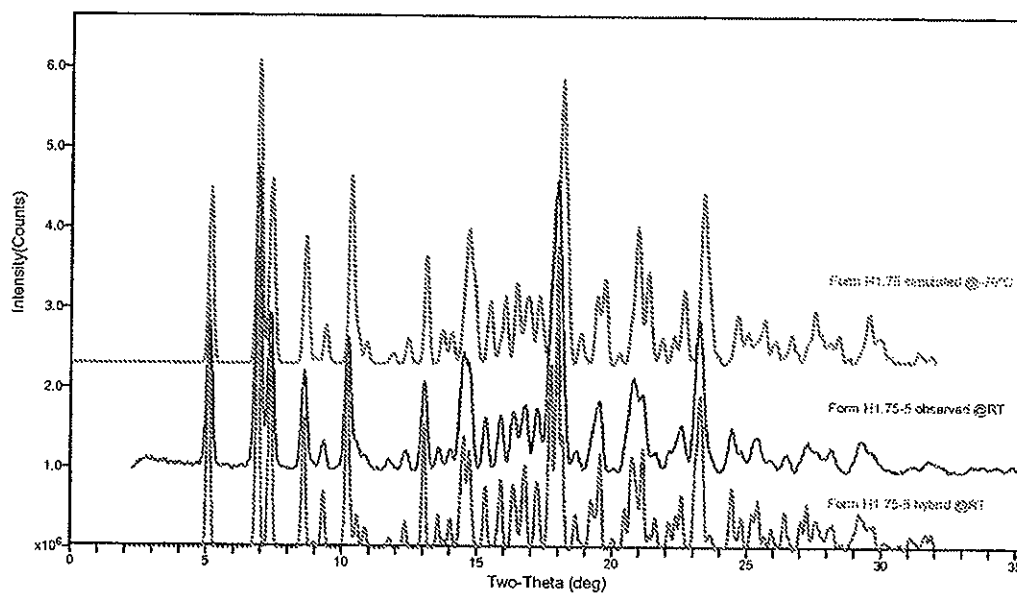
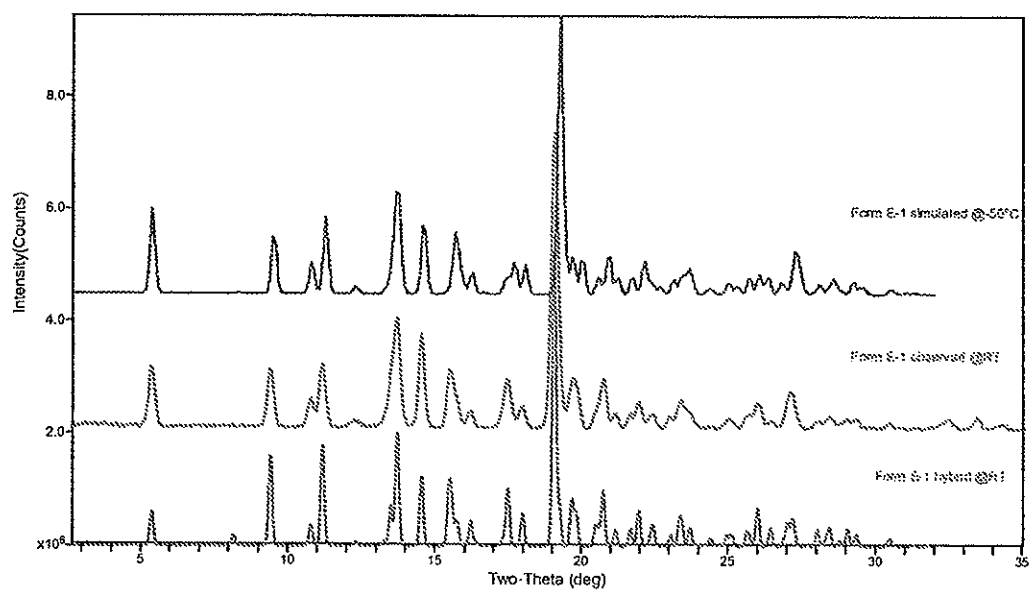


FIG. 4

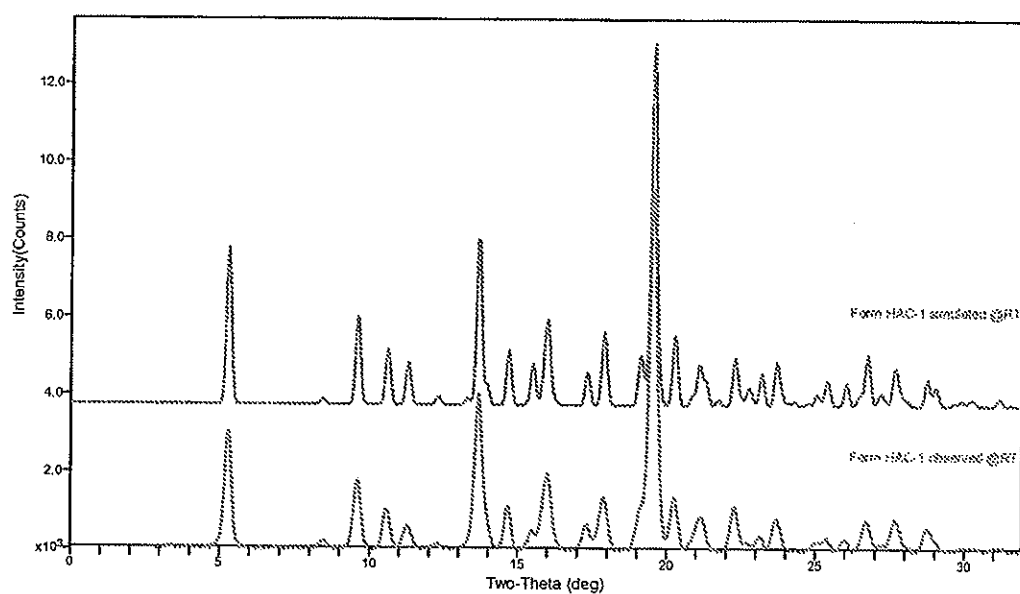
Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-ethanol solvate, Form E-1



5/27

FIG. 5

Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-acetic acid solvate, Form HAC-1



6/27

FIG. 6

Experimental and simulated powder patterns of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-*R*-propylene glycol solvate, Form RPG-3

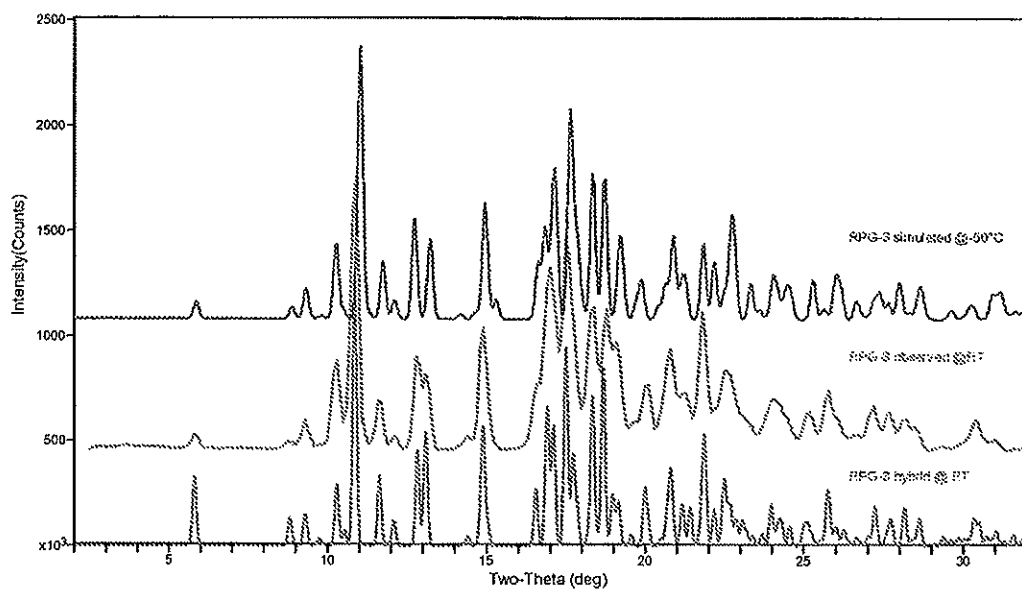
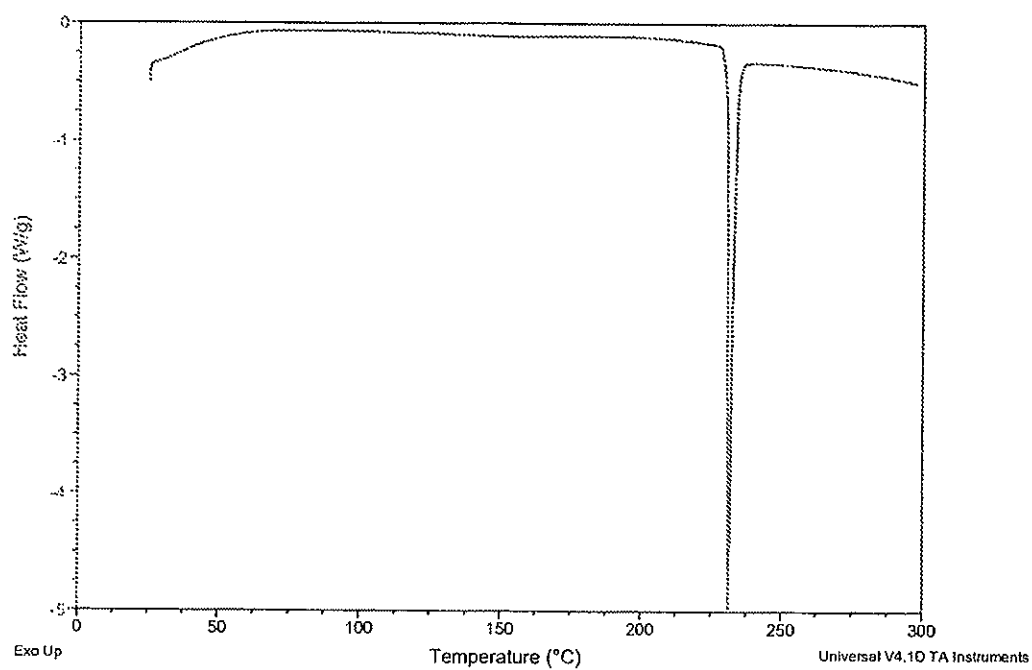


FIG. 7

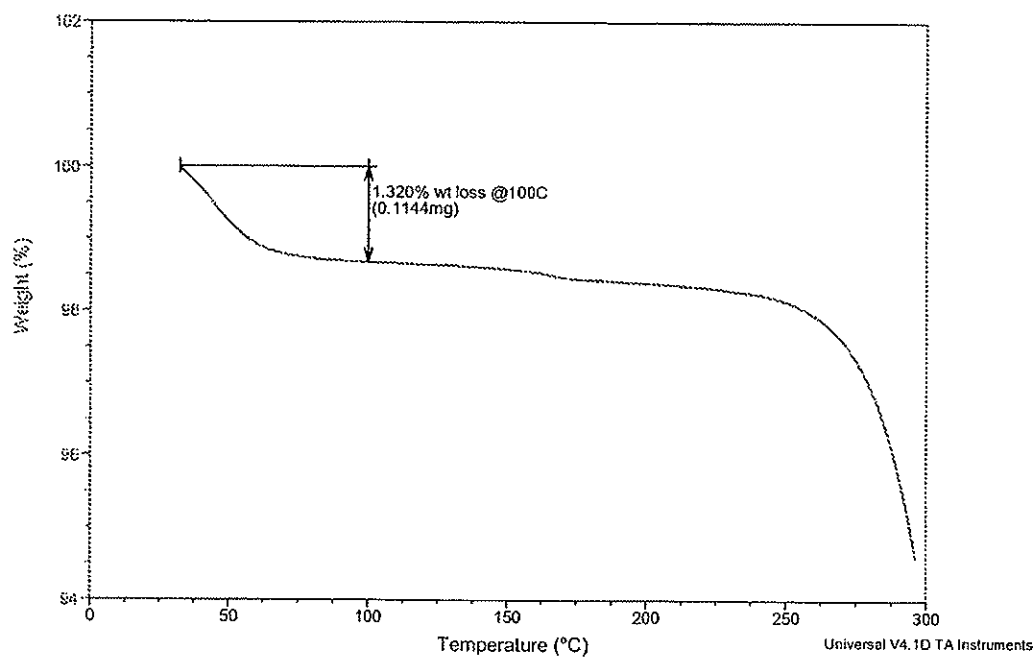
DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, hemi-hydrate, Form H0.5-4



8/27

FIG. 8

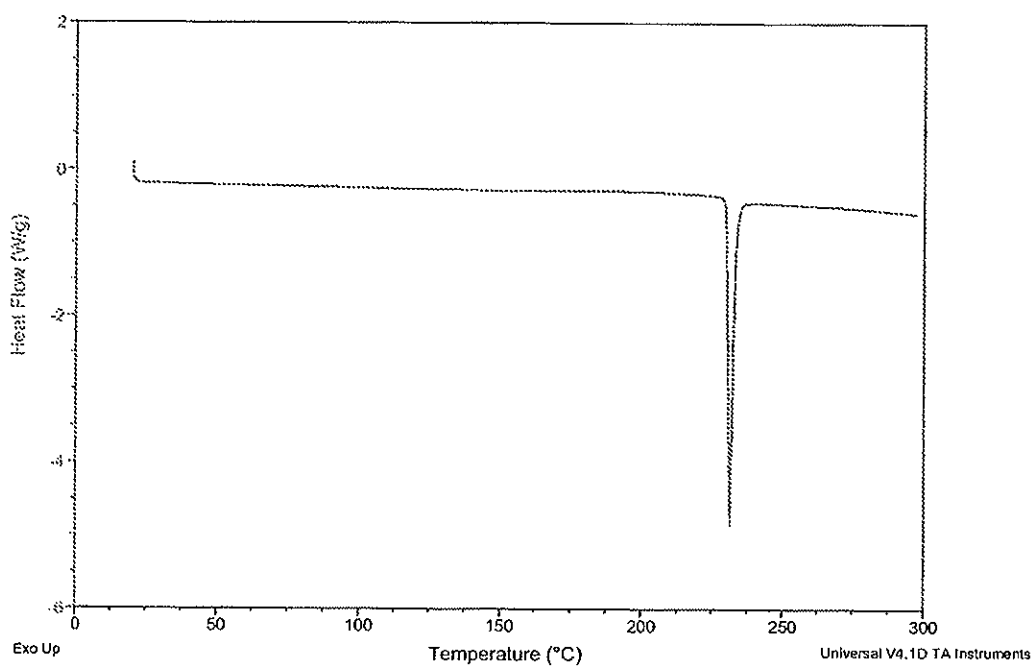
TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, hemi-hydrate, Form H0.5-4



9/27

FIG. 9

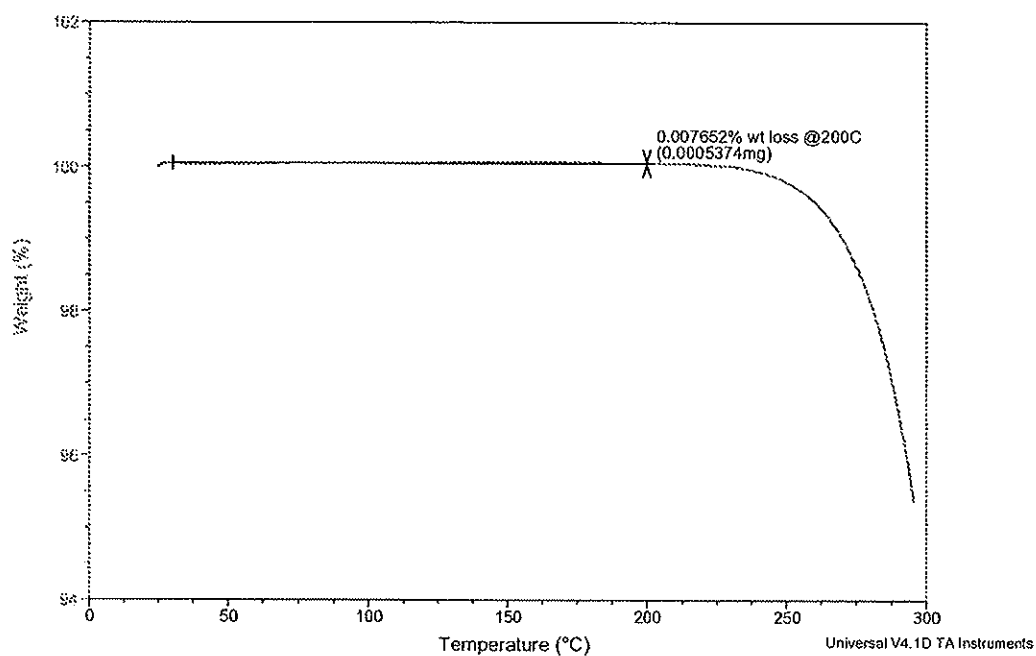
DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, free base
Form N-2



10/27

FIG. 10

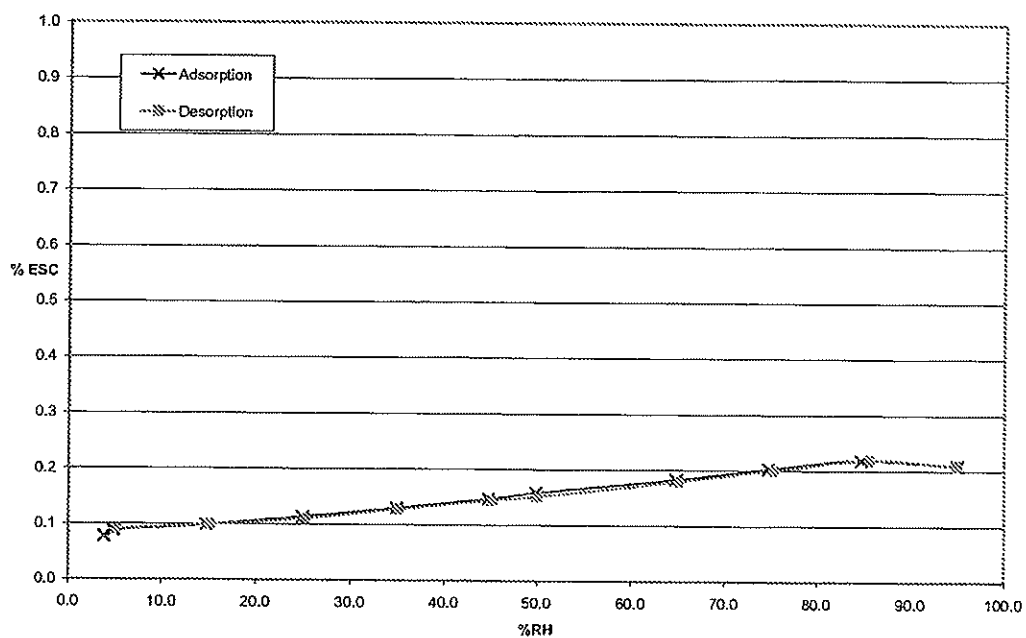
TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, free base Form N-2



11/27

FIG. 11

Vapor Sorption Isotherm of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, free base Form N-2 at 25 °C



12/27

FIG. 12

DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, 1.75 moles
H₂O, Form H1.75-5

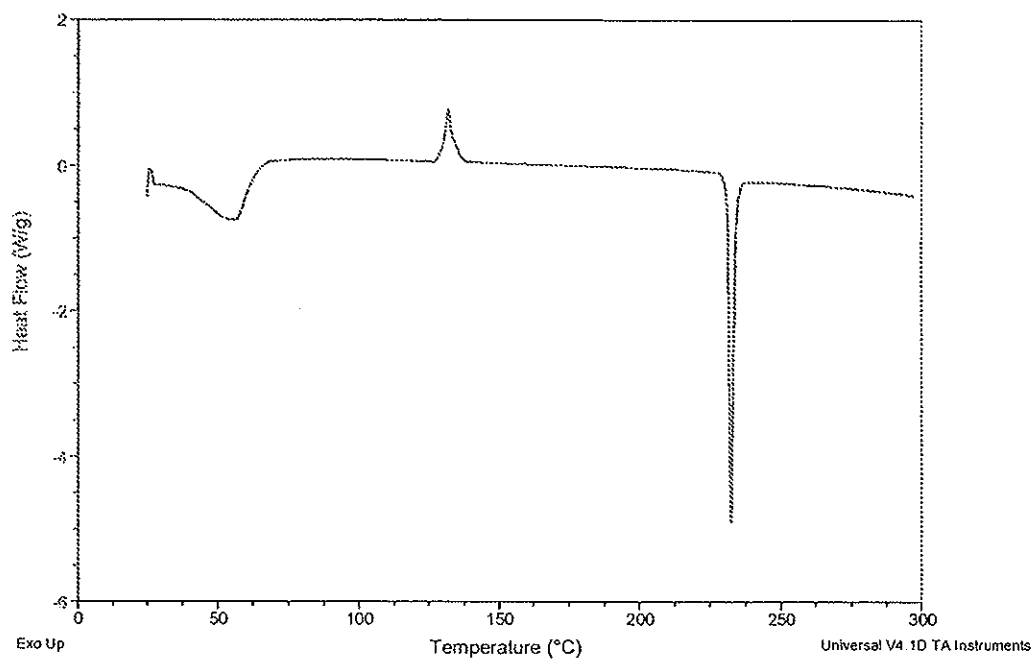
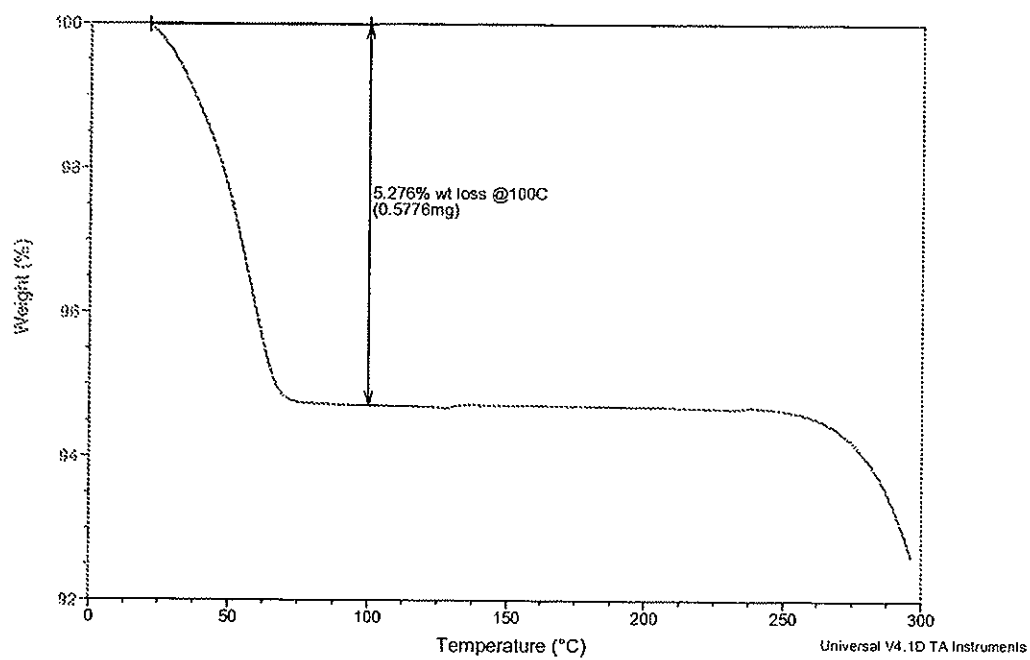


FIG. 13

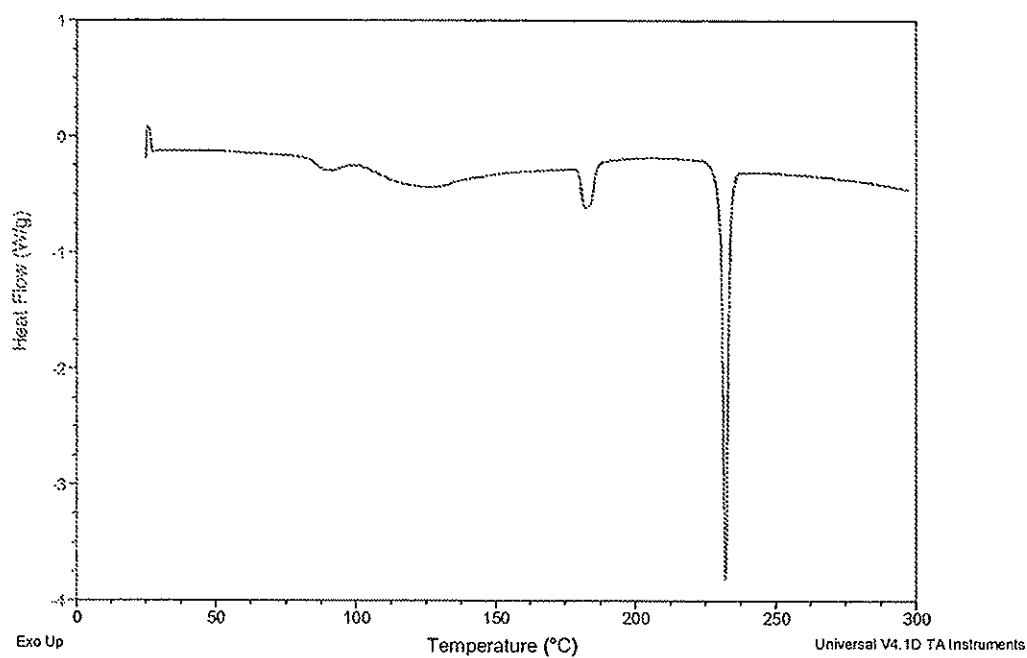
TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, 1.75 moles H₂O, Form H1.75-5



14/27

FIG. 14

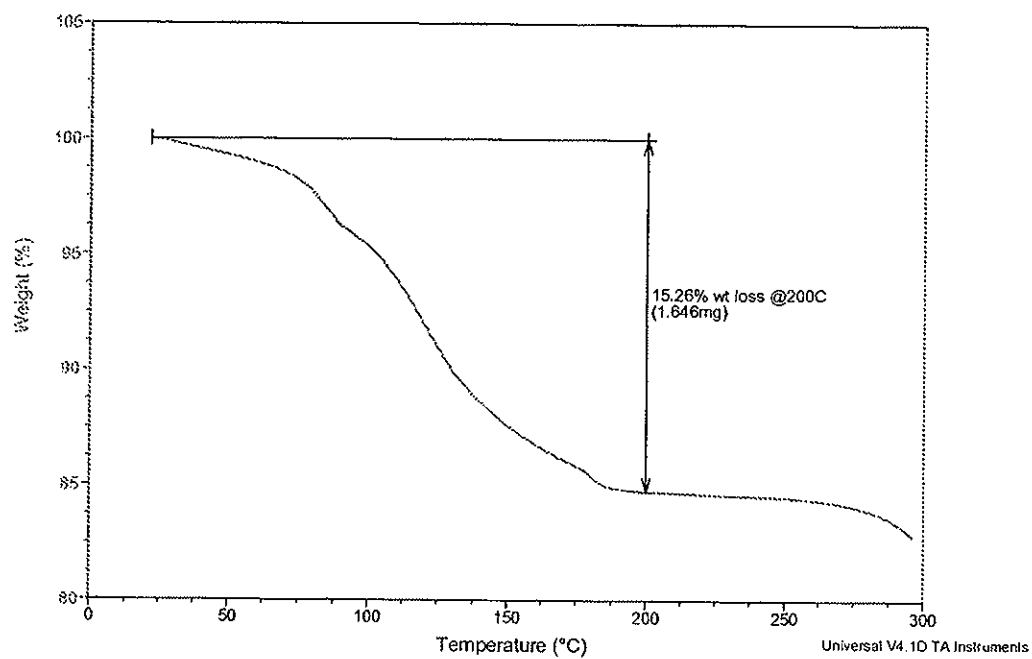
DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-acetic acid solvate, Form HAC-1



15/27

FIG. 15

TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-acetic acid solvate, Form HAC-1



16/27

FIG. 16

DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-ethanol solvate, E-1

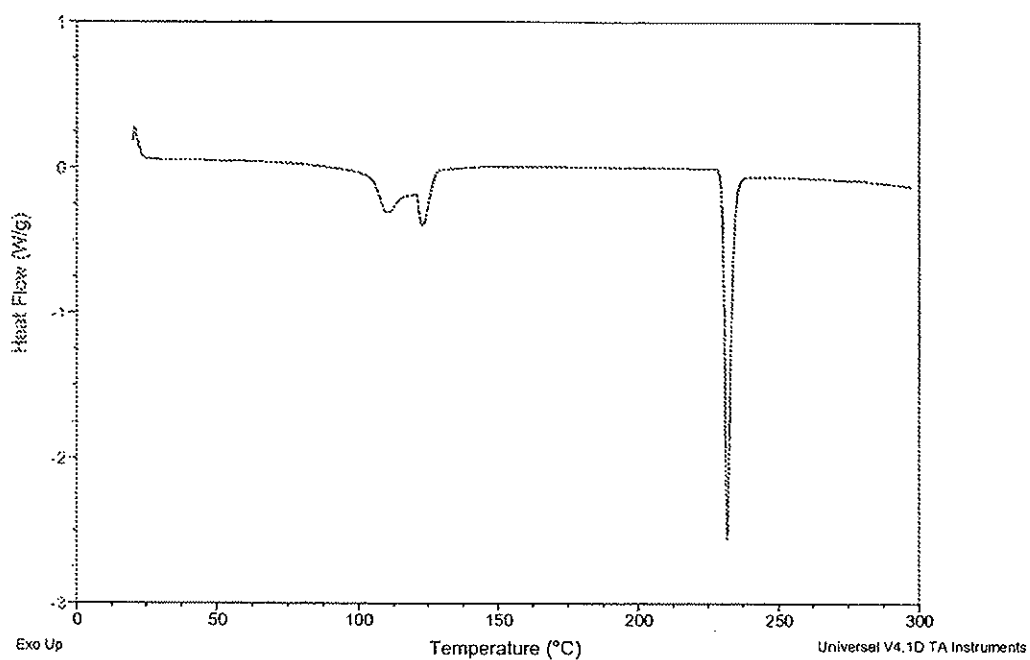
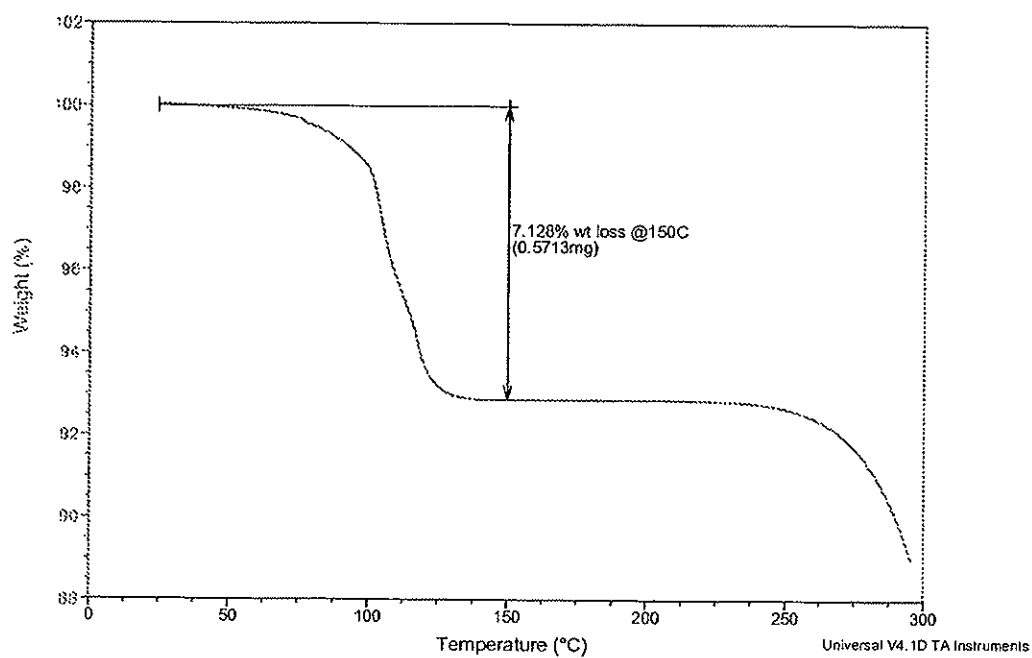


FIG. 17

TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-ethanol solvate, E-1



18/27

FIG. 18

DSC of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-R-propylene glycol solvate, Form RPG-3

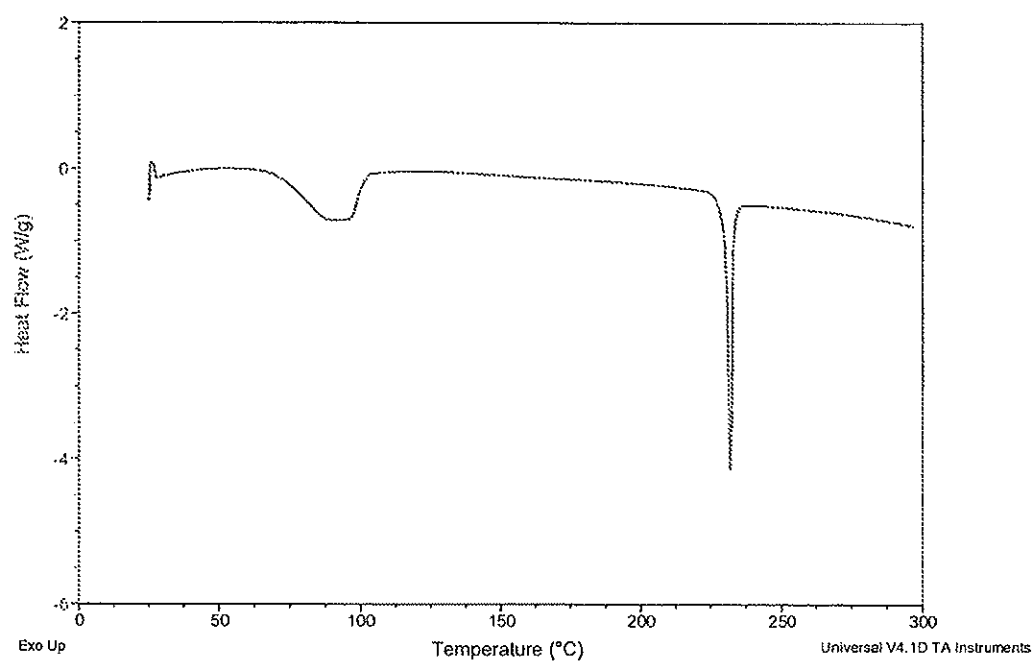


FIG. 19

TGA of N-((1R,2S,5R)-5-(*tert*-butylamino)-2-((S)-2-oxo-3-(6-(trifluoromethyl)quinazolin-4-ylamino)pyrrolidin-1-yl)cyclohexyl)acetamide, mono-R-propylene glycol solvate, Form RPG-3

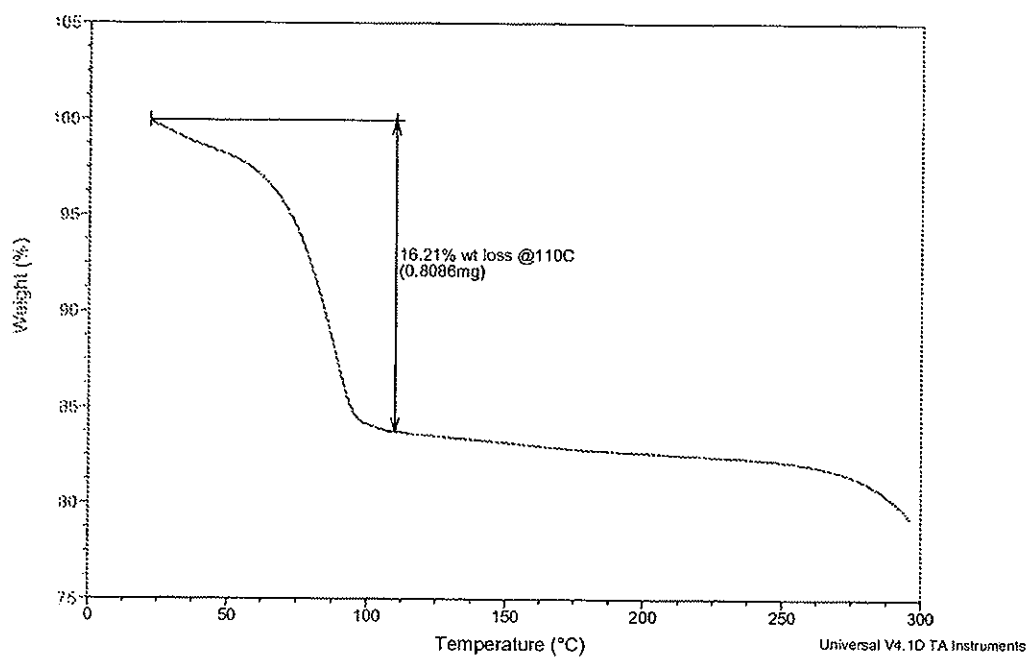


FIG. 20

Intradermal challenge model in cynomolgus monkey: Example 1 inhibited mononuclear cell recruitment to skin

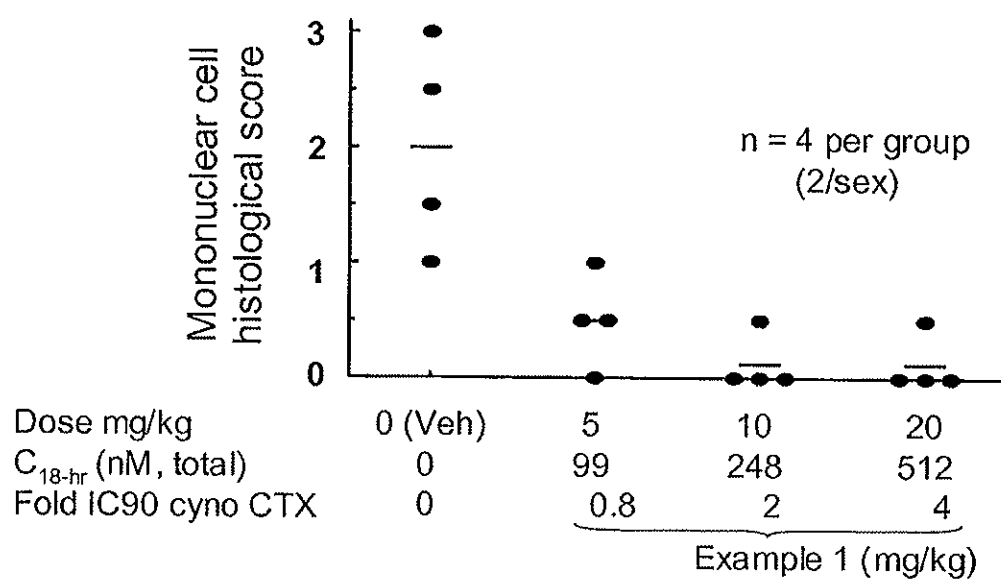


FIG. 21

48-hour TG peritonitis in hCCR2 KI mouse: Example 1 inhibition of monocyte/macrophage infiltration into peritoneal cavity

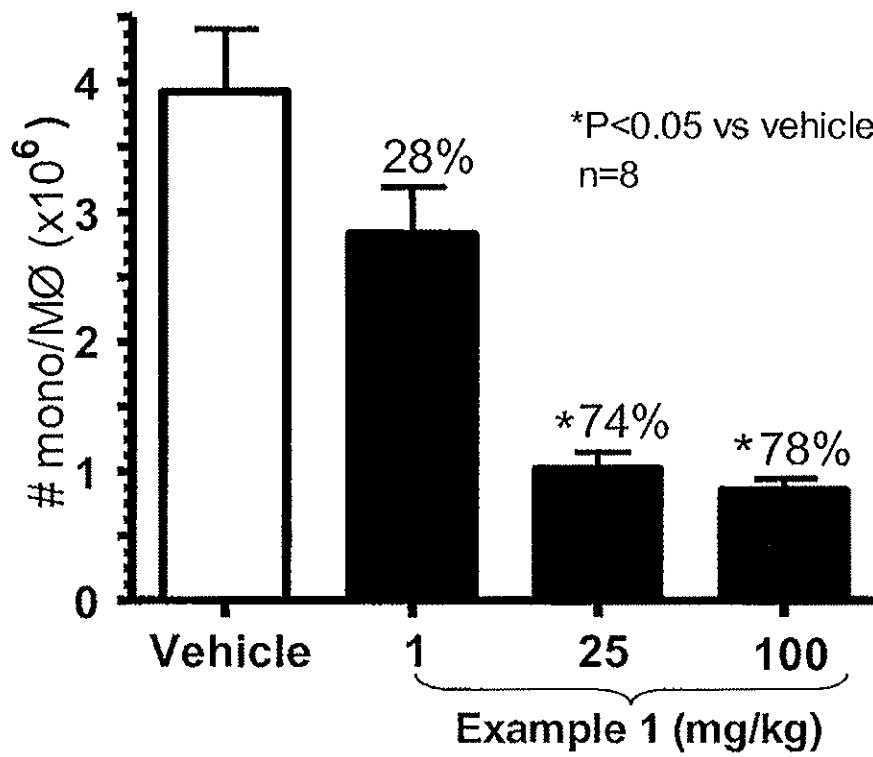
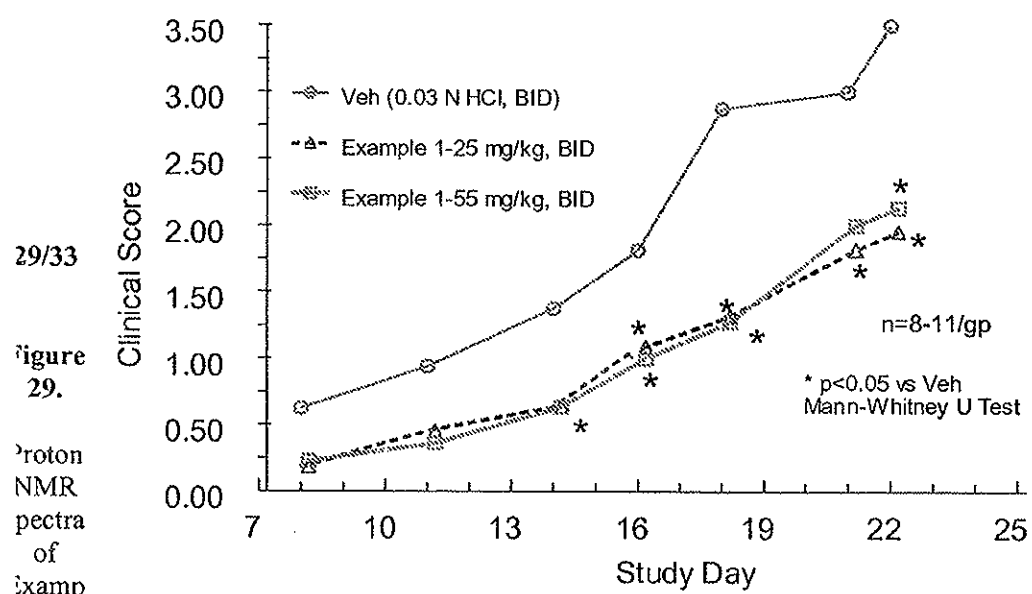


Figure 22

hCCR2 KI mouse EAE: Example 1 treatment reduced clinical score

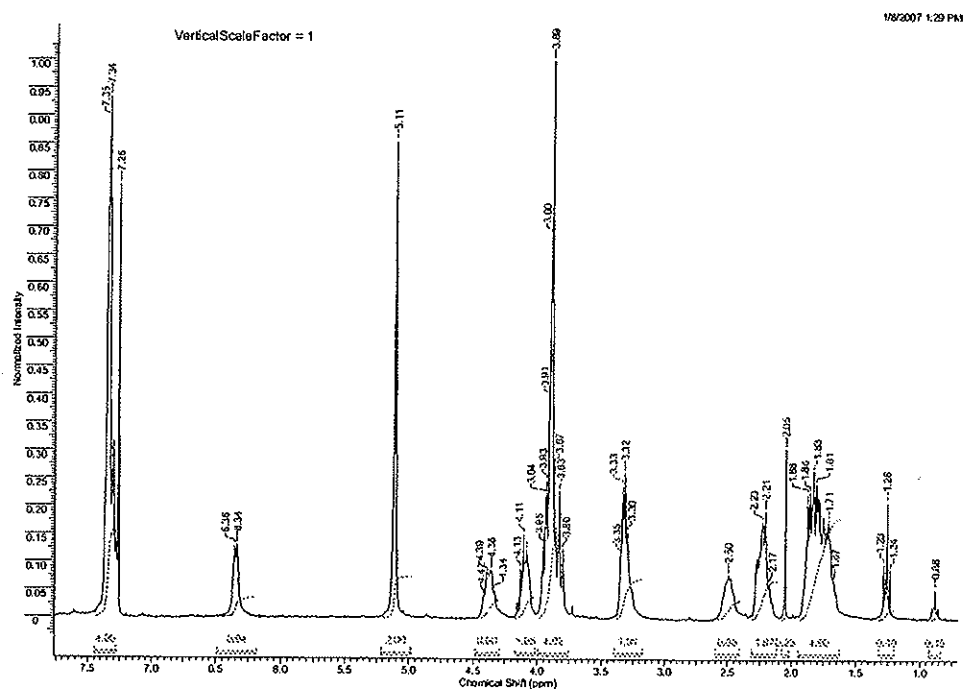


le 1, 2nd Alternative Preparation, Step 3—Compound 7

23/27

Figure 23

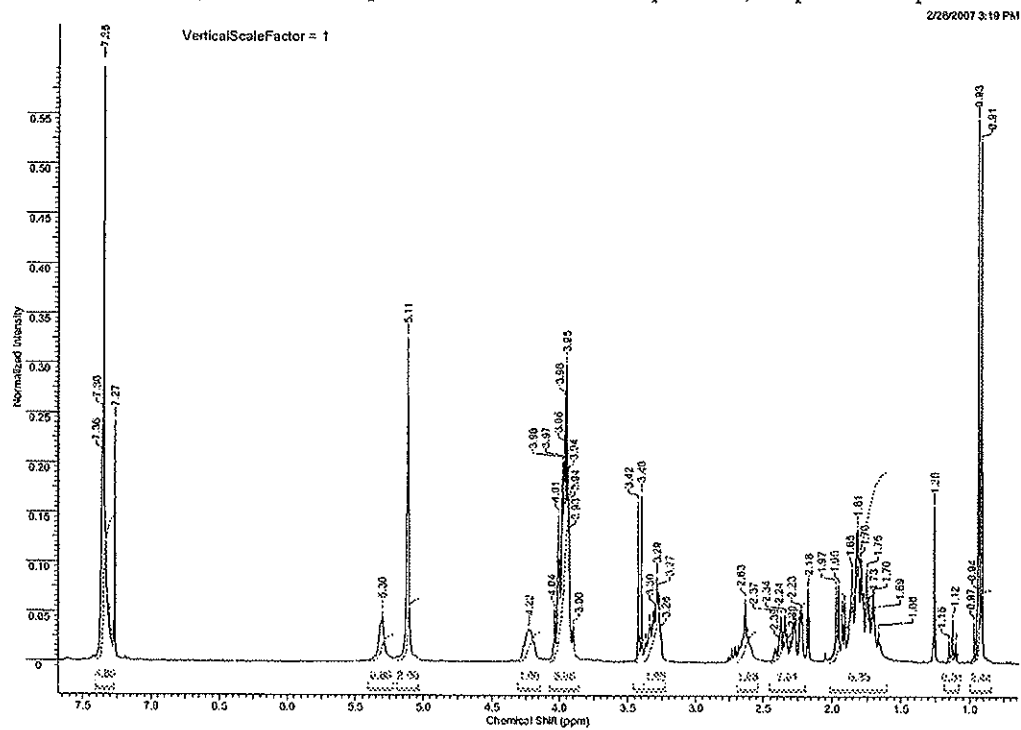
Proton NMR spectra of Example 1, 2nd Alternative Preparation, Step 3—Compound 7



24/27

Figure 24

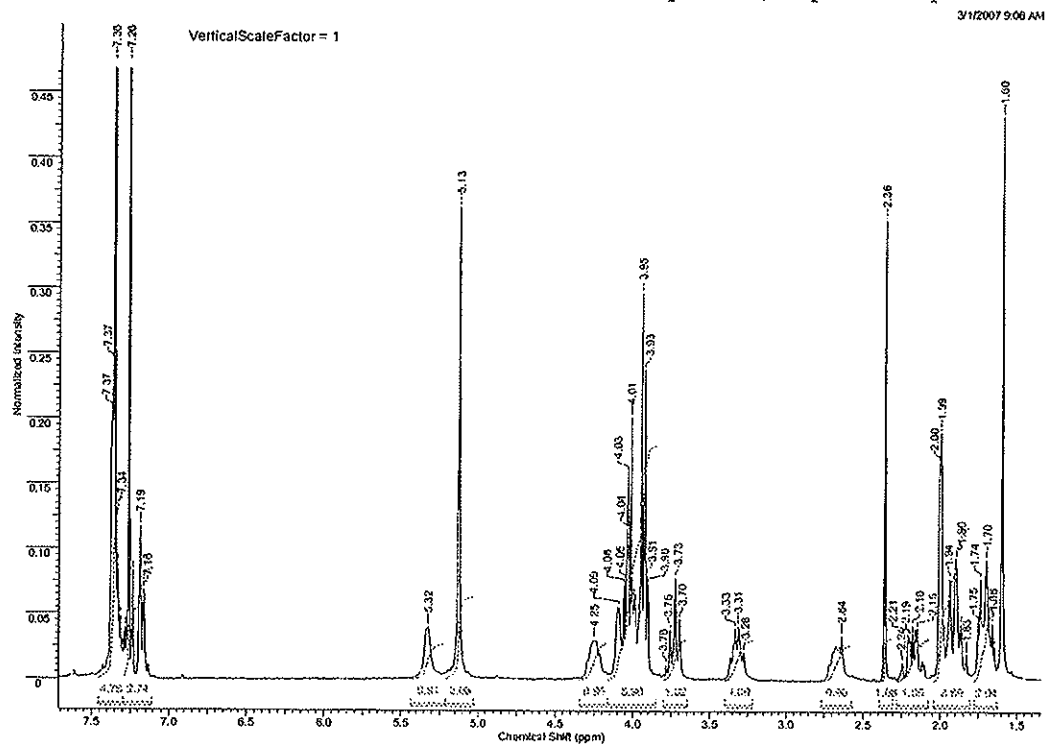
Proton NMR spectra of Example 1, 2nd Alternative Preparation, Step 4 – Compound 8



25/27

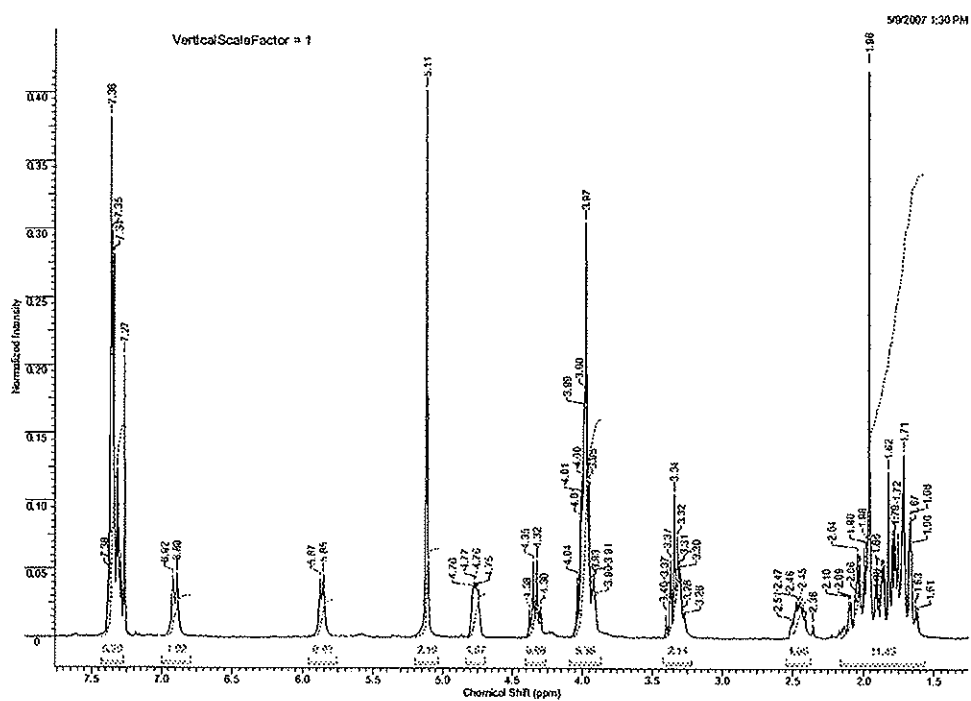
Figure 25

Proton NMR spectra of Example 1, 2nd Alternative Preparation, Step 4 – Compound 9



26/27

Figure 26

Proton NMR spectra of Example 1, 2nd Alternative Preparation, Step 4 – Compound 10

27/27

Figure 27

Proton NMR spectra of Example 1, 2nd Alternative Preparation, Step 5– Compound 11

