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(54) **Title:** MUMPS AND MEASLES VIRUS IMMUNOGENS AND THEIR USE

FIG. 1A

Yield (mg/L) / % Prefusion	483-GCN4	476-GCN4	469-GCN4
A163C-V235C	0 n/a	0 n/a	0 n/a
V206C-A223C	15.5 75	4.82 100	2.45 60
N86C-A215C	0.43 100	1.48 85	2.0 10
P209C-P214C	0.68 100	0.08 100	0 n/a
K155C-L161C	1.75 20	0.32 25	0.67 0
V165C-M231C	6.47 65	0.52 100	0.62 20
I221C-M255C	7.25 10	0.92 10	0.1 10
S184P	0 n/a	0 n/a	0 n/a

(57) **Abstract:** Embodiments of immunogens comprising a recombinant Mumps (MuV) F ectodomain trimer stabilized in a prefusion conformation or a recombinant Measles (MeV) F ectodomain trimer stabilized in a prefusion conformation are provided. Also provided are embodiments of immunogens comprising chimeric proteins comprising the recombinant MuV or MeV F ectodomain trimer and one or more MuV HN or MeV H ectodomains. Also disclosed are nucleic acids encoding the immunogens and methods of their production. Methods for inducing an immune response in a subject by administering a disclosed immunogen to the subject are also provided. In some embodiments, the immune response treats or inhibits MuV and/or MeV infection in a subject.

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