

# Active Recombinant Mouse Epidermal Growth Factor, MlgG2a Fc-tagged

**Cat. No.** EGF-545H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | The extracellular domain of human EGF (NP_001954.2) (Asn971-Arg1023) is fused to the N-terminus of the Fc region of mouse IgG2a was expressed in CHO cell.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | CHO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ProteinLength</b>    | 971-1023 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | This gene encodes a member of the epidermal growth factor superfamily. The encoded protein is synthesized as a large precursor molecule that is proteolytically cleaved to generate the 53-amino acid epidermal growth factor peptide. This protein acts a potent mitogenic factor that plays an important role in the growth, proliferation and differentiation of numerous cell types. This protein acts by binding the high affinity cell surface receptor, epidermal growth factor receptor. Defects in this gene are the cause of hypomagnesemia type 4. Dysregulation of this gene has been associated with the growth and progression of certain cancers. Alternate splicing results in multiple transcript variants. |
| <b>Form</b>             | Lyophilized from 0.2µm-filtered solution in PBS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Bio-activity</b>     | Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.2-1ng/mL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                       |                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 32 KDa (monomer)                                                                                                                    |
| <b>AA Sequence</b>    | Asn971-Arg1023                                                                                                                      |
| <b>Endotoxin</b>      | <0.06 eu/μg="" as="" determined="" by="" lal="" test.="">                                                                           |
| <b>Purity</b>         | >98%, by SDS-PAGE under reducing conditions.                                                                                        |
| <b>Stability</b>      | Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C. |
| <b>Reconstitution</b> | Reconstitute at 100μg/ml in sterile PBS.                                                                                            |
| <b>Warning</b>        | Avoid freeze/thaw cycles.                                                                                                           |

## GENE INFORMATION

|                        |                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | EGF epidermal growth factor [ Homo sapiens ]                                                                                         |
| <b>Official Symbol</b> | EGF                                                                                                                                  |
| <b>Synonyms</b>        | EGF; epidermal growth factor; epidermal growth factor (beta urogastrone); pro-epidermal growth factor; beta-urogastrone; URG; HOMG4; |
| <b>Gene ID</b>         | 1950                                                                                                                                 |
| <b>mRNA Refseq</b>     | NM_001178130                                                                                                                         |
| <b>Protein Refseq</b>  | NP_001171601                                                                                                                         |
| <b>MIM</b>             | 131530                                                                                                                               |

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UniProt ID</b>          | P01133                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Chromosome Location</b> | 4q25                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Pathway</b>             | Arf6 signaling events, organism-specific biosystem; Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; Ceramide signaling pathway, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Delta-Notch Signaling Pathway, organism-specific biosystem; |
| <b>Function</b>            | calcium ion binding; epidermal growth factor receptor binding; growth factor activity; protein binding; transmembrane receptor protein tyrosine kinase activator activity;                                                                                                                                                                                                                   |

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