Recombinant Mouse Fcα/μ R His-tag

Catalog Number: 10069-FC

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse Fc alpha/mu R protein Trp47-Arg455, with a C-terminal 6-His tag Accession # Q2TB54-1
N-terminal Sequence Analysis	Trp47
Predicted Molecular Mass	44 kDa

SPECIFICATIONS

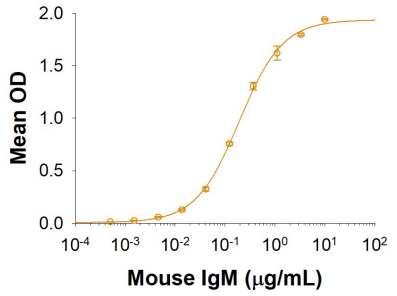
SDS-PAGE	97-112 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse Fcα/μ R is immobilized at 2 µg/mL, 100 µL/well, the concentration of Mouse IgM that produces 50% of the optimal binding response is 0.04-0.24 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

DATA

Binding Activity



When Recombinant Mouse Fc alpha/mu R (Catalog # 10069-FC) is coated at 2ug/mL, 100 uL/well, Mouse IgM binds with an ED_{50} of 0.04-0.24 µg/mL.

BACKGROUND

Fc alpha/mu Receptor (FCAMR), designated CD351, is an approximately 60-kDa transmembrane protein that serves as a receptor for IgA and IgM immunoglobulins (1). Mature mouse FCAMR consists of a 420 amino acid (aa) extracellular domain with one Ig-like V-type domain, a 21 aa transmembrane segment, and a 59 aa cytoplasmic domain. Within the ECD, mouse FCAMR shares 51% aa and 80% aa sequence identity with human and rat FCAMR, respectively. FCAMR is expressed on B cells, macrophages, and kidney mesangial cells (2-4). It binds to both IgA and IgM in immune complexes but not to monomeric immunoglobulin (2, 5). FCAMR participates in pathogen clearance as well as foam cell formation by mediating the internalization of IgM-opsonized microbes and oxidized LDL-containing particles (2, 6).

References:

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5. Ghumra, A. *et al.* (2009) Eur. J. Immunol. **39**:1147.
6. Feng, X. *et al.* (2010) Atherosclerosis **208**:396.

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