Recombinant Cynomolgus Monkey OX40/TNFRSF4 His-tag

Catalog Number: 10137-OX

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived cynomolgus monkey OX40/TNFRSF4 protein Leu29-Ala216, with an C-terminal 6-His tag Accession # XP 005545179
N-terminal Sequence Analysis	Leu29
Predicted Molecular Mass	21 kDa

SPECIFICATIONS

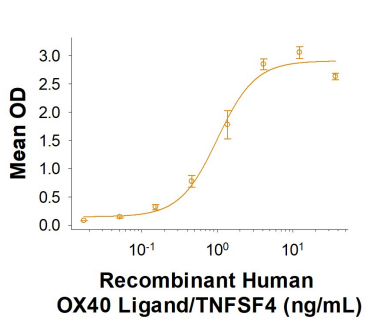
SDS-PAGE	40-55 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Cynomolgus Monkey OX40/TNFRSF4 His tag (Catalog # 10137-OX) is immobilized at 0.25 µg/mL (100 µL/well), Recombinant Human OX40 Ligand/TNFSF4 (Catalog # 1054-OX) binds with an ED_{50} of 0.25-1.5 ng/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 to -70 °C under sterile conditions after reconstitution.

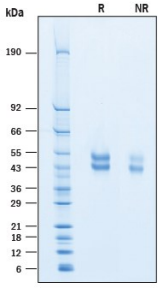
DATA

Binding Activity



When Recombinant Cynomolgus Monkey OX40/TNFRSF4 His-tag (Catalog # 10137-OX) is immobilized at 0.25 µg/mL, 100 µL/well, Recombinant Human OX40 Ligand/TNFSF4 (Catalog # 1054-OX) binds with an ED_{50} of 0.25-1.5 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Cynomolgus Monkey OX40/TNFRSF4 His-tag (Catalog # 10137-OX) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 40-55 kDa.

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BACKGROUND

OX40 (CD134; TNFRSF4) is a T cell co-stimulatory molecule of the TNF receptor superfamily that coordinates with other co-stimulators (CD28, CD40, CD30, CD27 and 4-1BB) to manage the activation of the immune response (1-3). Human OX40 is a 29 kDa type I transmembrane glycoprotein with a 28 amino acid (aa) signal sequence, a 188 aa extracellular domain (ECD) that contains a cysteine-rich region, a 20 aa transmembrane segment, and a 41 aa cytoplasmic domain (4). The ECD of cynomolgus OX40 shares 95% sequence identity with the ECD of human, 65% with mouse, and 64% with rat OX40. OX40 is up-regulated on $CD4^+$ and $CD8^+$ T cells upon engagement of the TCR by antigen presenting cells along with co-stimulation by CD40-CD40 Ligand and CD28-B7 (5, 6). OX40 Ligand is primarily expressed on antigen presenting cells (5). OX40 Ligand engagement of OX40 on activated $CD4^+$ T cells results in increased T cell survival, proliferation, and cytokine production. It also inhibits the conversion of effector T cells into immunosuppressive regulatory T cells (Tregs) and can promote the maintenance of and recall response in memory T cells (3, 7-10). OX40 is constitutively expressed on Tregs and enhances the sensitivity of Tregs to IL-2, thus promoting Treg proliferation. OX40 has also been shown to decrease the cells' immunosuppressive activity on effector T cells (11-14). OX40-OX40 Ligand signaling is involved in allergic airway inflammation, graft-versus-host disease and autoimmune disease (6, 15, 16). Mutations in OX40 and OX40 Ligand are associated with cardiovascular disease (17, 18).

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