

DESCRIPTION

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|---------------------------------|--|--------|---|
| Source | Human embryonic kidney cell, HEK293-derived cynomolgus monkey OX40/TNFRSF4 protein | | |
| | Cynomolgus Monkey OX40/TNFRSF4 (Leu29-Ala216) Accession # XP_005545179 | IEGRMD | Human IgG ₁ (Pro100-Lys330) |
| | N-terminus | | C-terminus |
| N-terminal Sequence | Leu29 | | |
| Analysis | | | |
| Structure / Form | Disulfide-linked homodimer | | |
| Predicted Molecular Mass | 47 kDa | | |

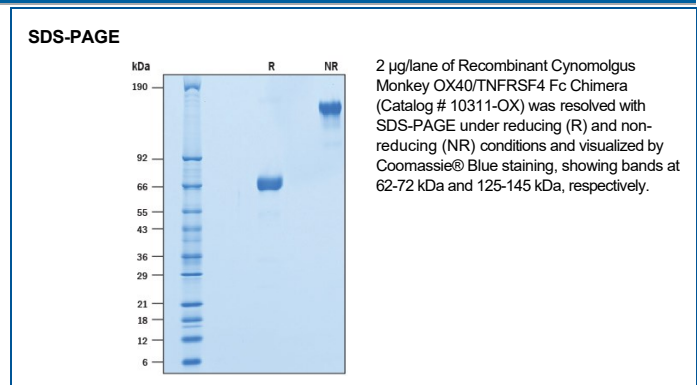
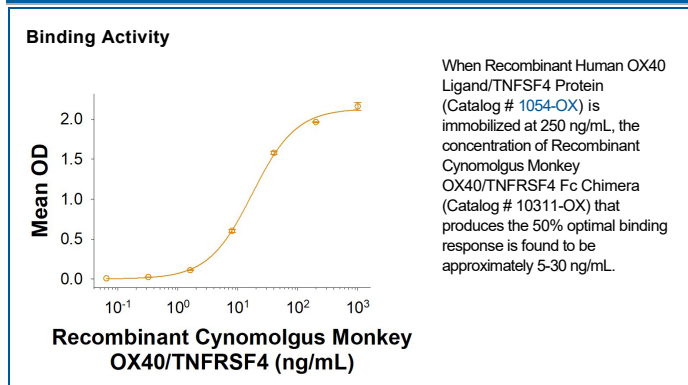
SPECIFICATIONS

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| SDS-PAGE | 62-72 kDa, under reducing conditions |
| Activity | Measured by its binding ability in a functional ELISA. When Recombinant Human OX40 Ligand/TNFSF4 (Catalog # 1054-OX) is immobilized at 250 ng/mL, the concentration of Recombinant Cynomolgus Monkey OX40/TNFRSF4 Fc Chimera (Catalog# 10311-OX) that produces 50% optimal binding response is found to be approximately 5-30 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 with trehalose. See Certificate of Analysis for details. |

PREPARATION AND STORAGE

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| Reconstitution | Reconstitute at 200 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. <ul style="list-style-type: none"> • 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



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). Cynomolgous OX40 is a 47 kDa type I transmembrane glycoprotein with a 28 amino acid (aa) signal sequence, a 187 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 Cynomolgous OX40 shares 95%, 65% and 64% amino acid sequence identity with the ECD of human, mouse and rat OX40, respectively. 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 (T regs) 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 T regs 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).

References:

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