Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647

Catalog Number: AFR3388

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived human OX40/TNFRSF4 protein

Human OX40 (Leu29-Ala216) Accession # P43489.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis

Leu29

Structure / Form

Disulfide-linked homodimer
Labeled with Alexa Fluor® 647
Excitation Wavelength: 650 nm
Emission Wavelength: 668nm

Predicted Molecular Mass

46.7 kDa (monomer)

SPECIFICATIONS

SDS-PAGE

70 kDa, under reducing conditions.

Activity

Measured by flow cytometry for its ability to bind anti-Human OX40/TNFRSF4 Monoclonal Antibody conjugated beads. The concentration of Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647 (Catalog # AFR3388) that produces 50% of the binding response is 1.5-15 ng/mL.

Endotoxin Level

<1.0 EU per 1 µg of the protein by the LAL method.

Purity

>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation

Supplied as a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping

The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

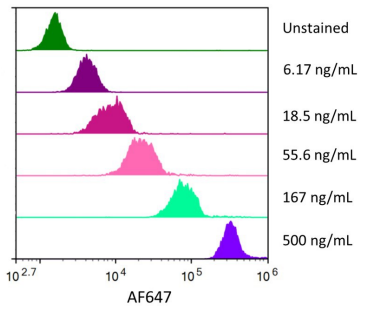
Stability & Storage

Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.
- 3 months, -20 to -70 °C under sterile conditions after opening.

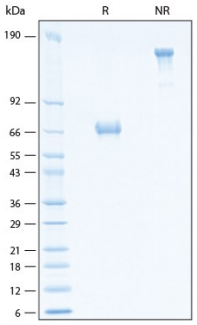
DATA

Flow Cytometry



Flow cytometry analysis for Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647 staining on anti-Human OX40/TNFRSF4 Monoclonal Antibody conjugated beads. Streptavidin coated beads conjugated to biotinylated anti-Human OX40/TNFRSF4 Monoclonal Antibody were stained with the indicated concentrations of Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647 (Catalog # AFR3388).

SDS-PAGE



Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647 Protein SDS-PAGE. 2 µg/lane of Recombinant Human OX40/TNFRSF4 Fc Chimera Alexa Fluor® 647 Protein (Catalog # AFR3388) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 70 kDa and 140 kDa, respectively.

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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 48 kDa type I transmembrane glycoprotein with a 28 amino acid (aa) signal sequence, a 185 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 human OX40 shares 63% sequence identity with the ECD of mouse and 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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