Recombinant Rat B7-H3 Fc Chimera

Catalog Number: 10610-B3

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived rat B7-H3 protein

Rat B7-H3 (Val29-Phe244) Accession # Q7TPB4.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Val29
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	50 kDa

SPECIFICATIONS

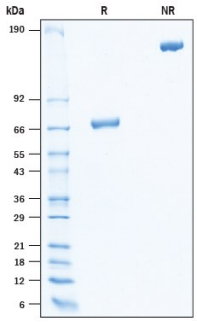
SDS-PAGE	66-76 kDa, under reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from 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

SDS-PAGE



Recombinant Rat B7-H3 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Rat B7-H3 Fc Chimera Protein (Catalog # 10610-B3) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 66-76 kDa and 132-152 kDa, respectively.

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BACKGROUND

B7 homolog 3 (B7-H3), also known as CD276 antigen (CD276), is one member among at least 10 members of the B7 family of immune regulatory proteins within the immunoglobulin superfamily (1-3). The B7 family members all display a conserved extracellular fold but share only about 20-40 % amino acid (aa) sequence identity. Rat B7-H3 consists of an extracellular domain (ECD) containing one V-like and one C-like Ig domain, a helical single-pass type I transmembrane domain, and a cytoplasmic domain. Two isoforms in the ECD of B7-H3 resulting from gene duplication and differential splicing have been identified: one containing four-Ig-like domains (main isoform in humans) and one containing two-Ig-like domains (only isoform in mice) (4, 5). Soluble forms of B7-H3 can result from proteinase cleavage of the isoform with two-Ig-like domains (3). Within the ECD, mature rat B7-H3 shares 92% and 98% aa sequence identity with human and mouse B7-H3, respectively. Human B7-H3 is not expressed on resting B cells, T cells, monocytes or dendritic cells, but is induced on dendritic cells and monocytes by inflammatory cytokines (6, 8). B7-H3 is also overexpressed in numerous cancers including bladder, breast and melanoma (9). Unlike other B7 family members, human B7-H3 does not bind any known members of the CD28 family of immunoreceptors and its receptor has yet to be identified. However, B7-H3 has been shown to bind an unidentified counter-receptor on activated T cells to costimulate the proliferation of CD4+ or CD8+ T cells (10). B7-H3 has also been found to enhance the induction of primary cytotoxic T lymphocytes and stimulate IFN-gamma production (6-8, 10).

References:

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