Recombinant Mouse B7-H3 Fc Chimera

Catalog Number: 10946-B3

DESCRIPTION

Source

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

Mouse B7-H3 (Val29-Phe244) Accession # Q8VE98.1	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

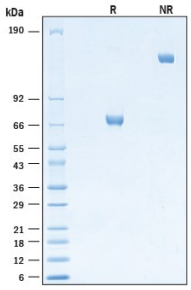
SDS-PAGE	65-73 kDa, under reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. 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 Mouse B7-H3 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Mouse B7-H3 Fc Chimera Protein (Catalog # 10946-B3) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 65-73 kDa and 130-150 kDa, respectively.

BACKGROUND

T cells require a signal induced by the engagement of the T cell receptor and a “costimulatory” signal(s) through distinct T cell surface molecules for optimal T cell expansion and activation. Members of the B7 superfamily of counter-receptors were identified by their ability to interact with costimulatory molecules found on the surface of T cells. Members of the B7 superfamily include B7-1 (CD80), B7-2 (CD86), B7-H1 (PD-L1), B7-H2 (B7RP-1), B7-H3, and PD-L2 (1). B7-H3 is expressed at very high levels in immature dendritic cells at moderate levels on mature dendritic cells, LPS stimulated immature dendritic cells and LPS stimulated monocytes, and at low levels on resting monocytes. B7-H3 binds to activated T cells via an as-of-yet identified receptor. B7-H3 co-stimulates proliferation of T cells and interferon-γ (IFN-γ) production and enhances the induction of cytotoxic T cells. B7-H3 shares 20 - 27% amino acid (aa) identity with other B7 family members (2). Murine B7-H3 is a 259 aa protein containing an extracellular domain, a transmembrane domain and a cytoplasmic domain. Mouse and human B7-H3 share 87% aa identity (3).

References:

1. Coyle, A.J. and J.-C. Gutierrez-Ramos (2001) Nature Immunol. **2**:203.
2. Chapoval, A.I. *et al.* (2001) Nature Immunol. **2**:269.
3. Sun, M. *et al.* (2002) J. Immunol. **168**:6294.

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USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475