Recombinant Human B7-H6

Catalog Number: 9309-B7

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived Asp25-Ser262, with a C-terminal 6-His tag Accession # Q68D85
N-terminal Sequence Analysis	Asp25
Predicted Molecular Mass	28 kDa

SPECIFICATIONS

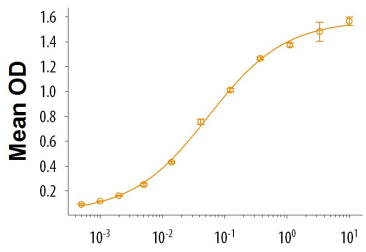
SDS-PAGE	51-63 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human B7-H6 is immobilized at 1 µg/mL (100 µL/well), the concentration of Recombinant Human NKp30/NCR3 Fc Chimera (Catalog # 1849-NK) that produces 50% of the optimal binding response is 0.02-0.1 µg/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 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.** ● 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

Bioactivity



When Recombinant Human B7-H6 (Catalog # 9309-B7) is immobilized at 1 µg/mL (100 µL/well), Recombinant Human NKp30/NCR3 Fc Chimera (Catalog # 1849-NK) binds with an ED_{50} of 0.02-0.1 µg/mL.

BACKGROUND

B7-H6 is a glycosylated member of the B7 family of immune co-stimulatory proteins (1 2). Mature human B7-H6 consists of a 238 amino acid (aa) extracellular domain (ECD) that contains one Ig-like V domain and one Ig-like C1 domain, a 21 aa transmembrane segment, and a 171 aa cytoplasmic domain that contains one ITIM, one SH2, and one SH3 motif (3). Both of the Ig-like domains carry N-linked glycosylation (4). Within the ECD, human B7-H6 shares 99%, 94%, and 87% aa sequence identity with chimpanzee, orangutan, and gibbon B7-H6, respectively, and 53%-56% with bovine, canine, and equine B7-H6. Orthologs in mouse and rat have not been identified. The Ig-like V domain mediates 1:1 stoichiometric binding of B7-H6 to NKp30 expressed on NK cells (4, 5). It does not show binding to NKp44, NKp46, or NKG2D (3, 6). Ligation of NKp30 by B7-H6 induces NK cell activation and target cell cytolysis (3). B7-H6 is expressed on a wide range of hematopoietic, carcinoma, and melanoma tumor cells, which is consistent with the detection of NKp30 binding sites on many tumors (3, 7). The expression of NKp30 ligands on tumor cells correlates with tumor cell sensitivity to NKp30-dependent cell lysis (7).

References:

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4. Li, Y. *et al.* (2011) J. Exp. Med. **208**:703.
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