

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived		
	Mouse H60 (Asp30 - Gln212) Accession # Q3TDZ7	IEGRMD	Human IgG ₁ (Pro100 - Lys330)
	N-terminus		C-terminus

N-terminal Sequence Analysis	Asp30
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	47.8 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	75-90 kDa, reducing conditions
Activity	Measured by its ability to bind to immobilized rmNKG2D/Fc Chimera in a functional ELISA.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile 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.

BACKGROUND

H60 was originally described as an immunodominant histocompatibility antigen that is expressed in BALB mice but not in B6 mice. More recently it was reported to function as a ligand for mouse NKG2D, an activating receptor found on NK cells, on some T cell subsets, and on stimulated macrophages. H60 shares approximately 25 percent amino acid identity with the Rae-1 family, a small group of proteins that also function as ligands for mouse NKG2D. H60 and the Rae-1 proteins are distantly related to MHC class I proteins, but they possess only the α1 and α2 Ig-like domains, and have no capacity to bind peptide or interact with β2-microglobulin. The genes encoding these proteins are not found within the Major Histocompatibility Complex on mouse chromosome 17, but rather map to mouse chromosome 10. Unlike the GPI-linked Rae-1 proteins, H60 appears to be anchored to the membrane via a hydrophobic transmembrane segment. H60 transcripts were found in embryonic tissue, in spleen, and in some transformed cell lines. Transcripts were also observed in mouse skin cells after exposure to carcinogens. Binding of H60 to NKG2D results in the activation of cytolytic activity and/or cytokine production by the NKG2D-expressing effector cells. Ectopic expression of H60 on mouse tumor cell lines resulted in the in vivo rejection of the tumors (1 - 6).

References:

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2. Diefenbach, A. *et al.* (2000) Nature Immunol. **1**:119.
3. Cerwenka, A. *et al.* (2000) Immunity **12**:721.
4. Cerwenka, A. *et al.* (2001) Proc. Natl. Acad. Sci. USA **98**:11521.
5. Diefenbach, A. *et al.* (2001) Nature **413**:165.
6. NKG2D and its Ligands, www.RnDSystems.com.