

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse H60 in ELISAs and Western blots.
Source	Monoclonal Rat IgG _{2A} Clone # 205326
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	BaF3 mouse pro-B cell line transfected with mouse H60 and mouse myeloma cell line NS0-derived recombinant mouse H60 Asp30-Gln212 Accession # Q3TDZ7
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	RAW 264.7 mouse monocyte/macrophage cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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:

1. Malarkannan, S. *et al.* (1998) *J. Immunol.* **161**:3501.
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.

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