

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Granzyme A in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Granzyme B, C, D, G, or H is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 356412
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Granzyme A Cys26-Val262 Accession # P12544
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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	NK-92 human natural killer lymphoma cell line fixed with paraformaldehyde and permeabilized with saponin

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

Granzyme A is a member of the granzyme family of the serine proteases found specifically in the cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells. Granzyme A is the most abundant protease in CTL and NK cells. It induces caspase-independent cell death when introduced into target cells by perforin (1). Human granzyme A is synthesized as a precursor (262 residues) with a signal peptide (residues 1-26), a propeptide (residues 27-28) and a mature chain (residues 29-262) (2). The purified recombinant human Granzyme A consists of residues 26 to 262. After being activated by lysyl endopeptidase, it cleaves a thioester substrate.

References:

- Lieberman, J. and Z. Fan (2003) *Curr. Opin. Immunol.* **15**:553.
- Gershenfeld, H.K. *et al.* (1988) *Proc. Natl. Acad. Sci. USA* **85**:1184.

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