

DESCRIPTION

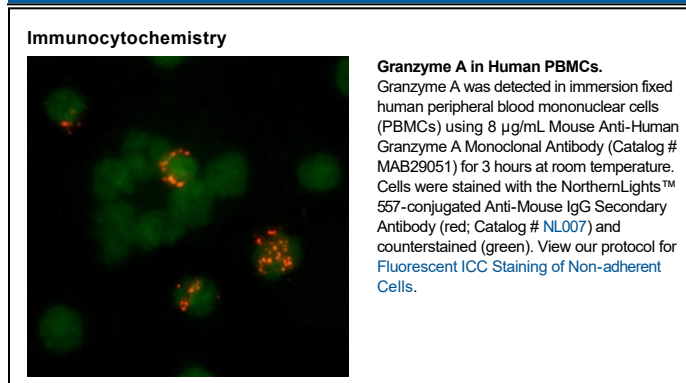
Species Reactivity	Human
Specificity	Detects human Granzyme A in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Granzyme B, C, D, G, or H is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 356412
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Granzyme A Cys26-Val262 Accession # P12544
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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
Immunocytochemistry	8-25 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Granzyme A (Catalog # 2905-SE), see our available Western blot detection antibodies
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	NK-92 human natural killer lymphoma cell line fixed with paraformaldehyde and permeabilized with saponin
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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:

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