



NP-5 (Alpha Defensin 5, Defensin 5, DEF5, Defensin alpha 5, Defensin alpha 5 Paneth Cell-specific, Defensin alpha 5 Preproprotein, DEFA5, HD5, HD-5, HNP5, HNP-5, MGC129728)

Catalog number

N5378-07B

Supplier

United States Biological

Human neutrophil alpha-defensins (also designated HNPs) are small, cationic, cysteine-rich antimicrobial proteins that play important roles in innate immunity against infectious microbes such as bacteria, fungi and enveloped viruses. Alpha-defensins are synthesized as inactive precursors and are activated by proteolytic cleavage by MMP-7. In the mature form, NP-5 is cleaved at residue 63 (alanine). Paneth cells in small intestinal crypts secrete the alpha-defensins, which are also termed cryptidins in mice. Alpha-defensins 5 and 6 probably contribute to innate defense of the GI mucosal surface by protecting against microbial invasion in states of intestinal inflammation.

Applications

Suitable for use in Immunofluorescence, ELISA, Western Blot. Dot Blot and Immunohistochemistry. Other applications not tested.

Recommended Dilutions

Immunohistochemistry (FFPE): 5-10ug/ml
Immunohistochemistry (Frozen): 5-10ug/ml
Western Blot: 1:1000
Immunofluorescence (IC): 1:200-1:1000
Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Full-length proHD5 protein The propeptide is the full-length protein. In the mature form it is cleaved at residue 63 (alanine). Cellular Localization: Secreted.

Formulation

Supplied as a liquid in Tris-glycine, 150mM sodium chloride, 0.05% sodium azide.

Purity

Purified by Protein G affinity chromatography

Specificity

Recognizes human HD5 at ~10kD. No crossreactivity is observed with HD6, lysozyme or sPLA2.

**Product Type**

Mab

Source

human

Isotype

IgG2b

Grade

Affinity Purified

Applications

DB E IF IHC WB

Crossreactivity

Hu

Storage

-20°C

Reference

1. Porter, EM, et al., Infection and Immunity 65: 2389-2395 (1997).
2. Wehkamp, J. et al. PNAS. 102(50): 18129-34 (2005) [Western blot, Immunohistochemistry]
3. Wehkamp, J. et al. FEBS Letters: 580 (2006) [Immunohistochemistry, Immunofluorescence]