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## **Monoclonal Antibody To Human Defensin 1-3**

### **Marker For Human Neutrophils**

Monoclonal antibody DEF-3 recognises a family of cyclic peptides in neutrophils. Four of these peptides are described in humans (HNP-1 to 4), six in rabbits (NP-1 to 5). Synonyms are MCP-1 for NP-1, MCP-2 for NP-2 and corticostatin for NP-3. The function of these peptides apart from their bactericidal, antifungal, and monocyte chemotactic functions is the inhibition of ACTH - induced corticosteroid synthesis. DEF-3 is an important marker for inflammation typing, and for staining mature neutrophils in immunohistochemistry.

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<b>Product Number:</b>	T-1034 (Lot 06PO0508)
<b>Clone:</b>	DEF-3
<b>Host species, isotype:</b>	Mouse IgG1
<b>Quantity:</b>	100µg
<b>Format:</b>	Affinity purified, lyophilized  Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.09% sodium azide as a preservative.
<b>Stability:</b>	Original vial: 1 year at 4° - 8°C  Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.
<b>Applications:</b>	Tested for immunohistochemistry (IHC); has been described to work in FACS with permeabilized cells.  <b>Approximate working dilution for IHC:</b> Frozen sections: 0.2µg/ml (1:1000 ) Paraffin sections: 0.5µg/ml (1:400); Proteinase K pretreatment for antigen retrieval is recommended.  Optimal dilutions should be determined by the end user.  Suggested positive control: Human tonsil.  Please see <a href="http://www.bma.ch">www.bma.ch</a> for protocols and general information.
<b>Immunogen:</b>	Native defensins.
<b>Antigen, epitope:</b>	Several defensins are recognized, the epitope has not been further characterized.

<b>Biological functions:</b>	Various functions have been described for defensins. They are antibacterial, antifungal, chemotactic for monocytes, inhibitory for ACTH-induced corticosteroid synthesis and cytotoxic for cells. Defensins are inhibited by glucosaminoglycans (self protection for cells) and high concentrations of Ca <sup>2+</sup> ions.
<b>Biochemistry:</b>	Defensins are a group of cyclic peptides containing 29-35 amino acids (MW < 3500) which tend to form aggregates. The molecules are protease resistant. The defensin content of azurophilic granules in neutrophils is approximately 30% of the total protein.
<b>Specificity:</b>	<b>Human:</b> Defensin 1-3 (HNP-1 to HNP-3) in human neutrophils. Synthetic defensin-1 and -2 (Bachem, Bubendorf CH) stain also positively. Not tested with Defensin-4. A side reaction to elastin has been observed in humans.  <b>Other:</b> not tested. Defensins have been described in rabbits (NP-1 to NP-5, NP3a = Corticostatin), and in mice (cryptodin).

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### Selected references

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For in vitro research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.