



Magic™ Human Anti-Human DEFA5

Monoclonal antibody, clone IB64 (DMAB-CS24584)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Human DEFA5
Target	Human DEFA5
Isotype	IgG1
Source/Host	Human
Species Reactivity	Human
Clone	IB64
Conjugate	Unconjugated
Applications	ELISA(Det), LFIA, CLIA, TINIA, POCT We recommend the following antibodies for sandwich immunoassay (Capture - Detection): DMAB-CS24583 - DMAB-CS24584
Format	Liquid
Size	1 mg
Buffer	Supplied as a 0.2 µM filtered solution of PBS, PH7.4.
Preservative	None
Storage	Store at -20°C to -80°C under sterile conditions. Avoid repeated freeze-thaw cycles.

BACKGROUND

Introduction	HD5 is highly expressed in the secretory granules of Paneth cells of the ileum. Six human α defensins, a subfamily of defensin peptides characterized by their cysteine spacing and disulfide connectivity, have been identified. Human Paneth cells express α-defensin 5 (HD5) along with HD6. Paneth cells are most numerous in the ileum and have many features similar to those of myeloid cells. They are multifaceted cells with a large quantity of apically-located eosinophilic secretory granules containing lysozyme and other antimicrobial factors which are released upon bacterial stimulation. In addition, these cells express tumor necrosis factor alpha (TNF-α), CD1, and CD15. Paneth cells do not store defensins as fully processed or active peptides, rather they store them as inactive propeptides. They are released as mature peptides after trypsin digestion. Trypsin is also secreted from the Paneth cell granules. It has been reported that disrupted α-defensin processing in murine Paneth cells has initiated a vulnerability to enteric infection. HD5 expression levels have been found to be negatively correlated to intestinal infection. Additionally, studies have shown HD5 to be a strong antagonist towards human Papillomavirus infection. Furthermore, low expression of HD5 is thought to play a role in Crohn's disease.
Keywords	DEFA5; defensin, alpha 5, Paneth cell-specific; DEF5; HD-5; defensin-5; HD5(20-94); defensin 5; defensin, alpha 5, preproprotein