



Product Specification Sheet

Mouse Beta Defensin-2 antibody

Cat # MBD21-A

Rabbit anti-Mouse Beta Defensin-2 antibody

SIZE: 100 µg

Antimicrobial peptides are a common mechanism of host defense utilized by a variety of species, from insects to humans. Defensins are a large family of broad-spectrum antimicrobial peptides, identified originally in leukocytes of rabbits and humans. Defensins, cationic/polar peptides (30-35 aa; 3-4 kDa), are distinguished by a conserved tri-disulfides and a largely β -Sheet structure. Defensins, expressed at the cell surface, have been hypothesized to function as a biochemical barrier against microbial infection by inhibiting colonization of the epithelium by wide range of pathogenic microorganisms. In leukocytes, these peptides are stored in cytoplasmic granules and are released into phagolysosomes where they contribute to the killing of engulfed microorganisms.

The genes encoding human α and β -defensins are clustered in a contiguous segment of chromosome 8p23. Defensins are classified into two families designated α - and β - based on distinctive, although similar, tri-disulfide linkages in the peptides. α -defensins are slightly larger and differ in the position and arrangement of 3 disulfides. In humans, six α -defensin (cryptidins), HD 1-6 (HD1-4 are also known as HNP1-4 for Human Neutrophil Peptides), and two β -defensins, HBD-1 and HBD-2, have been identified to date. Rat (RBD-1 and RBD-2) and mouse (MBD1-4) homologues of the human beta-defensin have also been identified.

Source of Antigen or Antibodies

Uniprot: P82020

Host: Rabbit

Clonality: Polyclonal

Purification: Protein affinity chromatography through a Recombinant Mouse BD-2 affinity column

Immunogen: Full length recombinant mature Mouse Beta Defensin-2

Species reactivity: Mouse

Cross reactivity: Due to low sequence homology (<60%), no reactivity is expected between Defensin-2 of other species or other Mouse defensin proteins

Subcellular Location: Extracellular region

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (ADI cat#20320)

Form & Storage of Antibodies

Affinity purified Rabbit IgG

Volume: 200 µl;
Supplied in PBS, pH 7.4

Concentration: 0.5 mg/ml

Lyophilized powder

Lyophilized from a formulation containing PBS, pH 7.4+3% trehalose. Reconstitute with 200 µl distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple freeze/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at -20°C.

Recommended Usage

QC: The titer was tested by coating ELISA microwells with 100 ng/well of recombinant Mouse Beta Defensin-2. The serum exhibited an OD greater than 1 at a dilution of 1:100,000.

ELISA: Assay dependent concentration. Typically, between 0.1-2.0 µg/ml for capture and detection antibodies. The antibody may be used self-paired in a Sandwich ELISA

Western Blotting: 0.5-2.0 µg/ml

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunofluorescence. These methods have not been tested by ADI.

**This product is for In vitro research use only.*

Related materials available from ADI

Catalog#	Description
	Antibodies and ELISA Kits to Human Alpha and Beta defensins as well as Mouse Defensin are available from ADI

MBD21-A	191227IA
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