Datasheet: PHP161

BATCH NUMBER 160880

Description:	RECOMBINANT HUMAN DEFENSIN BETA 2
Name:	DEFENSIN BETA 2
Other names:	BD-2
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	20 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4ng/well
Western Blotting	▪			1.5 - 3.0ng/lane
Functional Assays	▪			10 - 100ng/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified recombinant protein - lyophilized
Reconstitution	Reconstitute with 0.2ml 10 mM acetic acid. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For extended storage the addition of 0.1% bovine serum albumin (BSA) is recommended.
Preparation	Purified recombinant BD-2, expressed in *E. coli*
Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	< 0.1 ng/ug

Approx. Protein Concentrations	0.1 mg/ml after reconstitution
External Database Links	**UniProt:** O15263 Related reagents **Entrez Gene:** 1673 DEFB4A Related reagents
Synonyms	DEFB102, DEFB2, DEFB4
Product Information	**Recombinant human defensin beta-2 (BD-2)**, is a 4.3 kDa peptide comprised of 41 amino acid residues. BD-2, a member of the beta defensin family, is secreted at epithelial surfaces of the skin and respiratory tract and by some leukocytes. This defensin is induced by bacterial products and cytokines during inflammation and functions as part of the innate immune system, having a wide ranging antimicrobial activity. BD-2 also functions as a chemoattractant to immature dendritic cells and memory T cells and acts as a ligand for TLR4, upregulating co-stimulatory molecules and inducing dendritic cell maturation.
Protein Molecular Weight	4.3 kDa (41 amino acid residues)
Activity	Determined by its ability to chemoattract immature dendritic cells using a concentration of 10.0-100.0 ng/ml
Purity	>98% by SDS PAGE and HPLC
Amino Acid Sequence	GIGDPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKCCKKP
ELISA	Recombinant human BD-2 may be used as a standard in ELISA applications with either a purified human BD-2 antibody (AHP849) or a biotinylated human BD-2 antibody (AHP489B).
Western Blotting	Recombinant human BD-2 may be used as the positive control in Western Blotting applications with either a purified human BD-2 antibody (AHP849) or a biotinylated human BD-2 antibody (AHP489B).
References	1. Bals, R. *et al*. (1998) Human beta-Defensin 2 is a salt-sensitive peptide antibiotic expressed in human lung. J. Clin. Invest. 102: 874-880. 2. Yang, D. *et al*. (1999) Beta-defensins: linking innate and adaptive immunity through dendritic and T cell CCR6. Science 286: 525-528.
Storage	Prior to reconstitution store at -20°C. After reconstitution store at -20°C. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend

	microcentrifugation before use.
Guarantee	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
Health And Safety Information	Material Safety Datasheet documentation #10527 available at: https://www.bio-rad-antibodies.com/SDS/PHP161 10527
Regulatory	For research purposes only

North & South America
Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

Worldwide
Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com

Europe
Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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