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Datasheet for 200-301-F53

HSP22 Antibody

Overview

Description:	Anti-HSP22 (MOUSE) Monoclonal Antibody - 200-301-F53
Item No.:	200-301-F53
Size:	100 µg
Applications:	IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Mouse

Product Details

Background:	Hsp22 (HSPB8) is a 196-amino acid protein that is a member of the small heat shock protein super-family and the human protein is most closely related to Hsp27. Similar to most other sHSPs, Hsp22 is predominately transcribed in skeletal muscle and heart, as well as the placenta. Hsp22 is a monomeric protein which interacts with HSPB1. It displays temperature-dependent chaperone activity. In a two hybrid screen, HspB8 interacted preferentially with a triple aspartate form of Hsp27 which mimics Hsp27 phosphorylated at Ser15, Ser78, and Ser82, as compared to wild-type Hsp27. HSPB8 has two binding domains (N and C Terminal) that are specific for different binding partners, and has the ability to bind itself and other sHSPs (3). The chaperone-like activity is of great importance to the function of Hsp22 in various processes including proliferation, apoptosis and macroautophagy. Mutations in the HSPB8 gene are associated with the inherited peripheral neurpathies, autosomal dominant distal hereditary motor neuropathy type IIA (dSMA) and axonal Charcot-Marie-Tooth disease type 2L (CMT2L).
Synonyms:	Alpha crystallin C chain, CMT2L, CRYAC, DHMN2, H11, Heat shock 22kDa protein 8, HMN2, HSB8, HspB8, Heat shock protein beta-8, E2IG1, HSP22, E2-induced gene 1 protein, Protein kinase H11
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	3C12-H11
Format:	IgG1

Target Details

Gene Name:	HSPB8
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Recombinant Protein
Immunogen:	Hsp22 Antibody was produced in mice by repeated immunizations raised against a his-tagged human recombinant hsp22.
Purity/Specificity:	Anti-Hsp22 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with Hsp22 from human, mouse, and rat based on 100% homology with the immunizing sequence. Detects endogenous and exogenous hsp22 in monomeric, dimeric and tetrameric forms in WB. Does not cross react with alpha crystallin. Cross-reactivity with Hsp22 from other sources has not been determined. Heat Shock research.
Relevant Links:	• NCBI - NP_055180.1 • GeneID - 26353 • UniProtKB - Q9UJY1

Application Details

Tested Applications:	IF, IHC, WB
Application Note:	Anti-Hsp22 Antibody is tested for use in WB, IHC and IF. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:200
IHC:	User Optimized
WB:	1:2000

Formulation

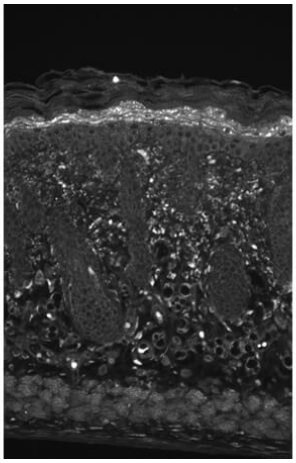
Physical State:	Liquid (sterile filtered)
Concentration:	1mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

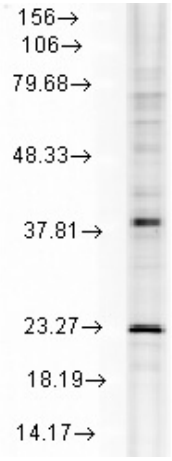
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry
Immunohistochemistry of mouse anti-Hsp22 antibody. Tissue: mouse backskin sections. Primary Antibody: Hsp22 antibody at 1µg/ml for 1h at RT. Secondary antibody: Peroxidase mouse secondary at 1:10,000 for 45 min at RT. Localization: Nuclear and cytoplasmic.



Western Blot
Western Blot of mouse anti-Hsp22 antibody. Lane 1: rat tissue mix. Lane 2: none. Load: 35 µg per lane. Primary antibody: Hsp22 antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 21.6 kDa/~23 kDa, 40 kDa for Hsp22. Other band(s): Hsp22 splice variant and isoform.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.