

Datasheet for 600-403-886**Beta Actin Antibody Peroxidase Conjugated****Overview**

Description:	Anti-beta Actin (RABBIT) Antibody Peroxidase Conjugated - 600-403-886
Item No.:	600-403-886
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse, Rat, Bovine, Goat, Guinea Pig, Hamster, Monkey, Pig, Sheep
Host Species:	Rabbit

Product Details

Background:	In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. Beta actins are highly conserved proteins that are involved in cell motility, structure and integrity. Beta actins are cytoplasmic proteins. Anti-Actin is a loading control antibody and is critical for the correct interpretation of your western blot. Beta-Actin Peroxidase conjugate Antibody is used to normalize the levels of protein detected by confirming that protein loading is uniform across the gel.
Synonyms:	rabbit anti-beta Actin Antibody HRP conjugation, peroxidase conjugated rabbit anti-beta Actin Antibody, Actin Antibody, Loading Control Antibody, beta actin, β actin, anti-beta actin antibody
Host Species:	Rabbit
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ACTB
Reactivity:	Human, Mouse, Rat, Bovine, Goat, Guinea Pig, Hamster, Monkey, Pig, Sheep

Immunogen: beta-Actin Loading Control Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Terminal region near amino acids 350-375 of Human beta Actin.

Purity/Specificity: Beta Actin Antibody Peroxidase Conjugated antibody is directed against human beta Actin protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with beta Actin from a wide range of organisms, including most vertebrates and some yeast. Broad reactivity makes this antibody an excellent loading control.

Relevant Links:

- [UniProtKB - P60709](#)

Application Details

Tested Applications: ELISA

Suggested Applications: WB (Based on references)

Application Note: Beta Actin Antibody Peroxidase Conjugated antibody has been tested for use in ELISA and is suitable in immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. Beta actin present in fibroblast connective tissue stains very brightly. Beta actin present in neuromuscular junctions also stains. Paraformaldehyde fixation yields brighter staining than formalin or methanol fixation. Expect a band at ~42 kDa in size corresponding to beta actin by western blotting in the appropriate cell lysate or extract.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:20,000

IHC: 1:500 - 1:2,500

WB: 1:1,000 - 1:5,000

Formulation

Physical State: Lyophilized

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!

Stabilizer: 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Reconstitution Volume: 100 µL

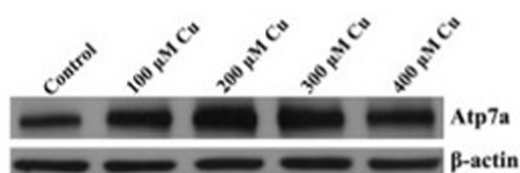
Reconstitution Buffer: Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. 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

D



Western Blot

D. Atp7a protein levels were determined by immunoblotting with a validated anti-Atp7a polyclonal antibody, with β -actin used as a constitutively expressed housekeeping protein for normalization. Atp7a bands are $\approx$ 180 kDa; β -actin bands are $\approx$ 50 kDa. Fig 2. PMID: 23174565

References

- Xie L et al. Copper stabilizes the Menkes copper-transporting ATPase (Atp7a) protein expressed in rat intestinal epithelial cells. *Am J Physiol Cell Physiol.* (2013)

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.