

Datasheet: AHP1387

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|----------------------|------------------------------|
| Description: | RABBIT ANTI HUMAN ACTIN BETA |
| Specificity: | ACTIN BETA |
| Other names: | ACTB |
| Format: | Purified |
| Product Type: | Polyclonal Antibody |
| Isotype: | Polyclonal IgG |
| Quantity: | 50 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 |
|--------------------------------|-----|----|----------------|--------------------|
| Flow Cytometry | | | ▪ | |
| Immunohistology - Frozen | | | ▪ | |
| Immunohistology - Paraffin (1) | ▪ | | | 5ug/ml |
| ELISA | ▪ | | | 1/10000 - 1/40000 |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 1/500 - 1/2000 |
| Immunofluorescence | ▪ | | | 1/500 - 1/4000 |
| Functional Assays | | | ▪ | |

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.

(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

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| Target Species | Human |
| Species Cross Reactivity | Based on sequence similarity, is expected to react with: Broad N.B. Antibody reactivity and working conditions may vary between species. |
| Product Form | Purified IgG - liquid |
| Antiserum Preparation | Antiserum to human Beta Actin was raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography. |
| Buffer Solution | Phosphate buffered saline |
| Preservative Stabilisers | 0.01% Sodium Azide (NaN ₃) |
| Approx. Protein | IgG concentration 1.0mg/ml |

Concentrations

Immunogen Synthetic Peptide corresponding to amino acid sequence 359-368 of human beta actin.

External Database Links

UniProt:

[P60709](#) [Related reagents](#)

Entrez Gene:

[60](#) ACTB [Related reagents](#)

Specificity

Rabbit anti Human actin beta antibody recognizes ACTB, one of the cytoplasmic actin isoforms, a 41.7 kDa cytoskeletal protein.

Actins are highly conserved proteins that are involved in cell motility, structure and integrity and are ubiquitously expressed in all eukaryotic cells. Higher vertebrates express six actin isoforms encoded for by distinct genes. Actin isoforms are highly evolutionarily conserved. Two striated muscle isoforms, alpha skeletal and alpha cardiac, two smooth muscle isoforms, alpha smooth and gamma smooth together with two cytoplasmic isoforms, beta cytoplasmic and gamma cytoplasmic are encoded by genes on chromosomes 1, 15, 10, 2, 7 and 17 respectively. All actin isoforms have highly homologous nucleotide sequences with the heterogeneity most notably in the N terminal region. However, small differences in primary structure here and elsewhere affect the conformational state of the various isoforms and their affinity for a range of actin binding proteins (ABPs). The range of affinities for ABPs suggests that where multiple globular monomeric (G-actin) forms exist at the same site, polymerisation may result in the formation of filamentous (F-actin) enriched for one particular isoform. Defects in actin beta are a cause of juvenile dystonia, a condition that results in movement disorders due to disordered muscle tonicity, abnormal posture, development malformations and sensory hearing loss.

Histology Positive Control Tissue

Human skeletal muscle

Western Blotting

AHP1387 detects a band of approximately 42 kDa in Human embryonic Kidney 293 cell lysates.

Storage

Store at +4°C or at -20°C if preferred.

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation available at:

Material Safety Datasheet Documentation #10040 available at:

<https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[DyLight®680](#), [DyLight®800](#)

Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000B\)](#)
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)
[TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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'M279311:160115'

Printed on 18 Jan 2018

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