

Datasheet: AHP1629

Description:	RABBIT ANTI HUMAN ACTIN BETA (N-TERMINAL)
Specificity:	ACTIN BETA (N-TERMINAL)
Other names:	ACTB
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 mg

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
Immunohistology - Frozen	▪			1.0ug/ml
Western Blotting	▪			1.0 - 2.0ug/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

Species Cross Reactivity

Reacts with: Mouse, Rat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Antiserum Preparation

Antiserum to human Actin beta(N-Terminal) 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

0.02% Sodium Azide (NaN₃)

Stabilisers

Approx. Protein Concentrations IgG concentration 1.0mg/ml

Immunogen A peptide corresponding to an 16 amino acid sequence from near the amino terminus of human Actin beta.

External Database Links

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

Entrez Gene:
[60](#) ACTB [Related reagents](#)

RRID AB_2223350

Specificity **Rabbit anti Human actin beta antibody** recognizes human actin beta (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 HeLa cells

Western Blotting AHP1629 detects a band of approximately 40kDa in HeLa cell lysates.

References

1. Sun, L. *et al.* (2014) Quantitative proteomics of *Xenopus laevis* embryos: expression kinetics of nearly 4000 proteins during early development. [Sci Rep. 4: 4365.](#)
2. Chen, X.J. *et al.* (2018) Association of reduced sclerostin expression with collapse process in patients with osteonecrosis of the femoral head. [Int Orthop. 42 \(7\): 1675-82.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at

-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/AHP1629 10040
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
- Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
- Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)
- Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
- Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Recommended Useful Reagents

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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