

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.
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 Stabilisers	0.02% Sodium Azide (NaN ₃)
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:

Entrez Gene:

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

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. <i>et al.</i> (2014) Quantitative proteomics of <i>Xenopus laevis</i> embryos: expression kinetics of nearly 4000 proteins during early development. Sci Rep. 4: 4365.
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 #10040 available at: 10040: 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 \(STAR3000A\)](#)

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

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
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