

Product Data Sheet

Product Name: Anti-Beta-Actin (CT) Antibody

Catalog Number: AS-54590

Lot Number: See label on vial

Product Description: This polyclonal antibody is supplied as an epitope-affinity purified rabbit

IgG 50 μ g in 250 μ l (0.2 mg/ml) of 1x PBS (pH 7.4) containing 0.1% BSA

and 0.05% sodium azide.

Immunogen: A 16 amino acid peptide from near the carboxy-terminus of human beta-

actin (Genbank accession No. AAH02409).

Species Reactivity: Species reactivity includes human, rat, and mouse. In IHC, Anti-Beta-

Actin (CT) showed moderate to strong staining across a wide variety of human formalin-fixed tissues with minimal background staining. At least 22 different human formalin-fixed, paraffin archival tissues, and positive and negative tissues were scored and compared to the published

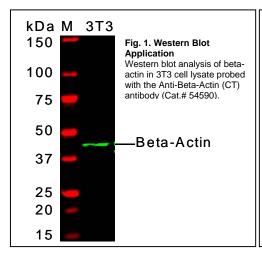
literature on the expression and function of the gene.

Application Notes: The following concentration ranges are recommended starting points for

this product. The investigator should determine the optimal working

concentrations for specific applications.

ELISA for immunizing peptide: 1:5,000-20,000
Western blot: 1:500-1,000
Immunohistochemistry: 1:100-200



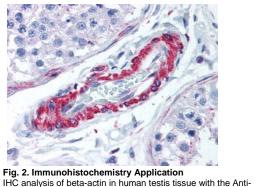


Fig. 2. Immunohistochemistry Application
IHC analysis of beta-actin in human testis tissue with the Anti-Beta-Actin (CT) (Cat.# 54590). The beta-actin is shown as the precipitated red signal, with a hematoxylin purple nuclear counterstain in vascular smooth muscle and moderate staining was seen in myofibroblasts within the testis.

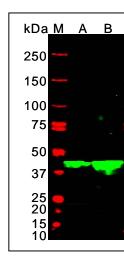


Fig. 3. Western Blot Application Western blot analysis of beta-actin in mouse brain (A) and mouse spleen (B) tissue lysate probed with the Anti-Beta-Actin (CT) antibody (Cat.# 54590). Immunoreactive bands at 42 kDa were detected in the lysates. Hilyte fluorTM 750 — conjugated secondary antibody was used and the signals were detected with an infrared-imaging system (Odyssey, Li-Cor, Inc.).

Background:

Actins are highly conserved proteins that are involved in cell motility, structure and integrity, processes that are crucial for tissue development and the development of the organism (reviewed in 1). The actin cytoskeleton is one of the principal drivers of cell motility and is capable of responding to complex signaling cascades. Recent evidence suggests that it may play key roles in regulating apoptosis and aging (2). Beta-actin is one of six different actin isoforms, which have been identified. Like GAPDH, beta-actin is constitutively expressed at high levels in almost all tissues and cell lines making it ideal for use as a loading control marker in immunoblots.

Storage:

Store at 4 °C for up to 12 months upon receiving the product. Avoid repeated freezing and thawing.

References:

- 1. Lambrechts, A. et al. Int J Biochem Cell Biol 36,1890 (2004).
- 2. Gourlay, CW. et al. Nat Rev 6, 583 (2005).

Compatible Secondary Antibodies:

Catalog #	Goat anti-Rabbit IgG (H+L)
AS-28176	Unconjugated
AS-28176-AMCA	AMCA Labeled
AS-28176-FAM	FAM Labeled
AS-28176-FITC	FITC Labeled
AS-28176-TAMRA	TAMRA Labeled
AS-28176-H488	HiLyte Fluor [™] 488 Labeled
AS-28176-H555	HiLyte Fluor [™] 555 Labeled
AS-28176-H594	HiLyte Fluor [™] 594 Labeled
AS-28176-H647	HiLyte Fluor [™] 647 Labeled
AS-28176-H680	HiLyte Fluor [™] 680 Labeled
AS-28176-H750	HiLyte Fluor [™] 750 Labeled
AS-61056-H488	Highly Cross-adsorbed, HiLyte Fluor [™] 488 Labeled
AS-61056-H555	Highly Cross-adsorbed, HiLyte Fluor [™] 555 Labeled
AS-61056-H594	Highly Cross-adsorbed, HiLyte Fluor [™] 594 Labeled
AS-61056-H647	Highly Cross-adsorbed, HiLyte Fluor [™] 647 Labeled
AS-61056-H680	Highly Cross-adsorbed, HiLyte Fluor [™] 680 Labeled
AS-61056-H750	Highly Cross-adsorbed, HiLyte Fluor [™] 750 Labeled
AS-28177	Highly Cross-adsorbed, HRP Labeled
AS-28178	Highly Cross-adsorbed, AP Labeled
AS-28179	Highly Cross-adsorbed, Biotin Labeled

This product is for in vitro research use only.