P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.ScyTek.com

Actin, Muscle Specific; Clone HHF35

Catalog Number	Format	Volume
A00001-0002	(Ready-To-Use)	2 ml
A00001-0007	(Ready-To-Use)	7 ml
A00001-0025	(Ready-To-Use)	25 ml
A00001-C.1	(Concentrate)	0.1 ml
A00001-C	(Concentrate)	1 ml

Intended Use

For Research Use Only. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy. Any diagnostic interpretation of the results of this antibody is to be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.
Concentrate: Suggested dilution is 1:100-200

Species: Mouse

Immunogen: SDS extract of human myocardium.

Clone: HHF35

Isotype: IgG1, Kappa.

Entrez Gene ID: 58, 59, 70 (Human)

Hu Chromosome Loc.: 1q42.13 (ACTA1; 10q23.3 (ACTA2); 2p13.1 (ACTG2)

Synonyms: ACTA, ACTA1, ACTA2, ACTC1, Actin, ACTSA, Alpha-2 actin, alpha skeletal muscle, Alpha-actin-1, Cardiac muscle alpha actin-1, Skeletal muscle alpha actin-1

Mol. Wt. of Antigen: Multiple

Format: Ready-To-Use antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Concentrate antibody is provided at 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% Sodium Azide.

Specificity: This antibody reacts with actin of skeletal, cardiac, and smooth muscle cells. It is not reactive with other mesenchymal cells except for myoepithelium. This antibody recognizes alpha and gamma isotypes of all muscle groups. Non-muscle cells such as vascular endothelial cells and connective tissues are non-reactive. Also, neoplastic cells of non-muscle-derived tissue such as carcinomas, melanomas, and lymphomas are negative. In addition, it stains tumors of smooth muscle (leiomyomas and leiomyosarcomas) as well as skeletal muscle (rhabdomyomas and rhabdomyosarcomas).

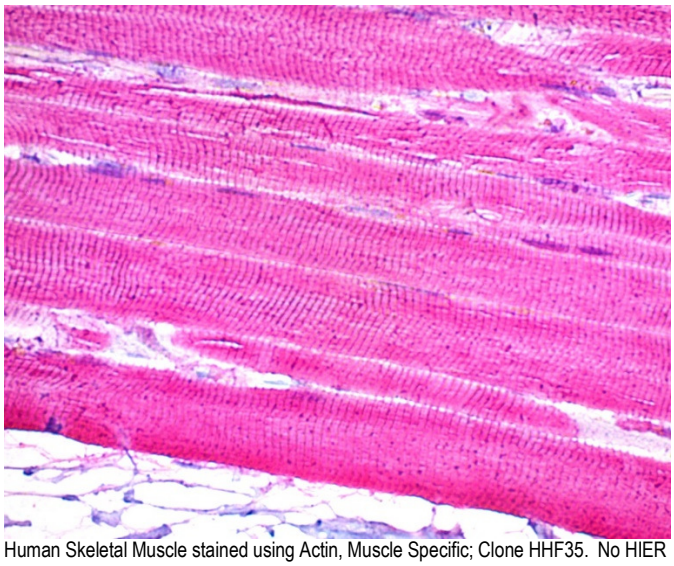
Background: Actin can be resolved on the basis of its isoelectric points into three distinctive components; alpha, beta, and gamma in order of increasing isoelectric point.

Species Reactivity: Human, Rabbit, Cat, Dog, Mouse, Rat, Chicken. Others-not known

Positive Control: Muscle or sarcoma

Cellular Localization: Cytoplasmic

Microbiological State: Nonsterile.



Human Skeletal Muscle stained using Actin, Muscle Specific; Clone HHF35. No HIER Pretreatment, PolyTek Anti-Mouse Polymerized Alk-Phos and Permanent Red Chromogen/Substrate. Counterstained with Hematoxylin, Mayer's (Lillie's Modification). Final magnification 400X.

Materials and Reagents Required but not Provided

1. Control tissue and reagents
2. Xylene, graded alcohols, and deionized/distilled water
3. Antibody Diluent.
4. IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
5. Wash buffer for rinses (ScyTek Cat# TBT500)
6. Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
7. Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.

Procedure

1 **Tissue Section Pretreatment (Not Required):** In-house studies show no increase in staining intensity with Heat Induced Epitope Retrieval (HIER).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Storage: 2° C 8° C

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Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

1. Kojima M, Nakamura S, Itoh H, Suchi T, Masawa N. Inflammatory pseudotumor of the submandibular gland: report of a case presenting with autoimmune disease-like clinical manifestations. Archives of pathology & laboratory medicine. 2001 Aug;125(8):1095-7.
2. Koide O, Matsuzaka K, Tanaka Y. Multiple giant angiomyolipomas with a polygonal epithelioid cell component in tuberous sclerosis: an autopsy case report. Pathology international. 1998 Dec;48(12):998-1002.
3. Tsukada T. et. al. Am J Pathol 1987, 126:51.
4. Tsukada T. et. al. Am J Pathol 1987, 127:389.

Warranty

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

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