## **Product Datasheet**

# alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) NBP2-44464-0.1mg

Unit Size: 0.1 mg Store at 4C.

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## NBP2-44464-0.1mg

| alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) |  |
|--|--|
| Product Information                                  |  |
| Unit Size  | 0.1 mg   |
| Concentration  | 0.2 mg/ml  |
| Storage  | Store at 4C.   |
| Clonality  | Monoclonal   |
| Clone  | 1A4 + ACTA2/791  |
| Preservative   | 0.05% Sodium Azide   |
| Isotype  | IgG2a Kappa/IgG2a Kappa  |
| Purity   | Protein A or G purified  |
| Buffer   | 10 mM PBS with 0.05% BSA   |
| Target Molecular Weight                              | 42 kDa   |
| Product Description                                  |  |
| Description  | 200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-47699)  Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.   |
| Host   | Mouse  |
| Gene ID  | 59   |
| Gene Symbol  | ACTA2  |
| Species  | Human, Rat   |
| Reactivity Notes                                     | Predicted to show a broad reactivity.  |
| Marker   | Leiomyosarcoma Marker  |
| Specificity/Sensitivity                              | Actin is a major component of the cytoskeleton and is present in most cell types. It is highly specific to actin from smooth muscles. This monoclonal antibody does not stain cardiac or skeletal muscle; however, it does stain myofibroblasts and myoepithelial cells. This antibody could be used together with anti-muscle specific actin and myogenin in making a diagnosis of smooth muscle and skeletal muscle tumors. In most cases of rhabdomyosarcoma, this antibody yields negative results whereas anti-muscle specific actin and myogenin are positive. Leiomyosarcomas are positive only with anti-muscle specific actin and anti-smooth muscle actin and are negative with anti-myogenin. |
| Immunogen  | N-Terminal decapeptide of alpha-Smooth Muscle Actin and conjugated to KLH (1A4); Recombinant full-length human ACTA2 protein (ACTA2/791) (Uniprot: P62736)   |
| Product Application Details                          |  |
| Applications   | Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin   |
| Recommended Dilutions                                | Flow Cytometry 1-2 ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2 ug/ml, Immunohistochemistry-Paraffin 0.25-0.5 ug/ml   |



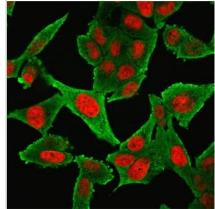
#### **Application Notes**

Immunohistochemistry (Formalin-fixed): 0.25-0.5ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes.

Optimal dilution for a specific application should be determined.

## **Images**

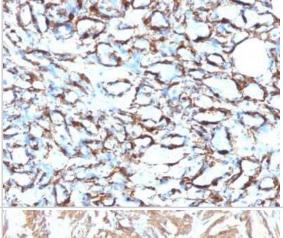
Immunocytochemistry/Immunofluorescence: alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) [NBP2-44464] - Immunofluorescence Analysis of HeLa cells labeling Smooth Muscle Actin with alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) followed by Goat anti-Mouse IgG-CF488(Green). The nuclear counterstain is NucSpot (Red).



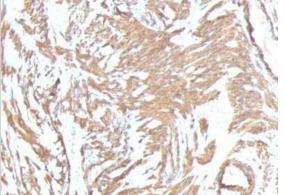
Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) [NBP2-44464] - Paraffin-embedded Rat Stomach stained with Smooth Muscle Actin Monoclonal Antibody (1A4 + ACTA2/791).



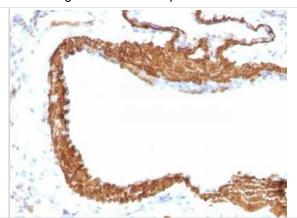
Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) [NBP2-44464] - Paraffin-embedded Human Angiosarcoma stained with alpha-Smooth Muscle Actin Monoclonal Antibody (1A4 + ACTA2/791).



Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) [NBP2-44464] - Paraffin-embedded Human Leiomyosarcoma stained with Smooth Muscle Actin Monoclonal Antibody (1A4 + ACTA2/791).



Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (1A4 + ACTA2/791) [NBP2-44464] - Paraffin-embedded Rat Lung stained with Smooth Muscle Actin Monoclonal Antibody (1A4 + ACTA2/791).



### **Publications**

Hayashi T, Konishi I Familial Gastrointestinal Stromal Tumor Associated with Zebra-like Pigmentation Biomedicines 2023-05-30 [PMID: 37371685] (IHC-P, Human)

Atlas Y, Gorin C, Novais A et al Microvascular maturation by mesenchymal stem cells in vitro improves blood perfusion in implanted tissue constructs Biomaterials 2021-01-02 [PMID: 33387754] (ICC/IF, Human)

#### Details:

Citation using the DyLight 550 version of this antibody.





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## Products Related to NBP2-44464-0.1mg

HAF007 Goat anti-Mouse IgG Secondary Antibody [HRP]

NB720-B Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]

H00000059-P01-10ug Recombinant Human alpha-Smooth Muscle Actin GST (N-Term) Protein

DVE00 VEGF [HRP]

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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