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36-3131: Anti-S100B (Astrocyte and Melanoma Marker) Monoclonal Antibody(Clone: S100B/1012)

Clonality :	Monoclonal
Clone Name :	S100B/1012
Application :	IHC,FACS,WB,IF
Reactivity :	Human
Gene :	S100B
Gene ID :	6285
Uniprot ID :	P04271
Alternative Name :	NEF; Protein S100-B; S-100 protein beta chain; S100 calcium binding protein beta (neural); S100 calcium-binding protein B; S100 protein beta chain; S100B; S100beta
Isotype :	Mouse IgG2a, kappa
Immunogen Information :	Recombinant full-length human S100B protein

Description

The specificity of this monoclonal antibody to its intended target was validated by HuProtTM Array, containing more than 19,000, full-length human proteins. S100 belongs to the family of calcium binding proteins. S100A and S100B proteins are two members of the S100 family. S100A is composed of an alpha and a beta chain whereas S100B is composed of two beta chains. This antibody is specific against an epitope located on the beta-chain (i.e. in S-100A and S-100B) but not on the alpha-chain of S-100 (i.e. in S-100A and S100A0). This antibody can be used to localize S-100A and S-100B in various tissue sections. S-100 protein has been found in normal melanocytes, Langerhans cells, histiocytes, chondrocytes, lipocytes, skeletal and cardiac muscle, Schwann cells, epithelial and myoepithelial cells of the breast, salivary and sweat glands, as well as in glial cells. Neoplasms derived from these cells also express S-100 protein, albeit non-uniformly. A large number of well-differentiated tumors of the salivary gland, adipose and cartilaginous tissue, and Schwann cell-derived tumors express S-100 protein. Almost all malignant melanomas and cases of histiocytosis X are positive for S-100 protein.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage condition :	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

Application Note

Flow Cytometry (1-2ug/million cells); Immunofluorescence (1-2ug/ml); ,Western Blot (1-2ug/ml);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 95°C followed by cooling at RT for 20 minutes);

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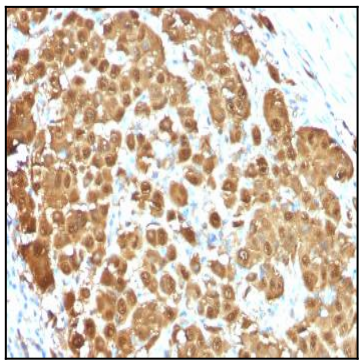

Fig. 1: Formalin-fixed, paraffin-embedded human Melanoma stained with S100B Mouse Monoclonal Antibody (S100B/1012).

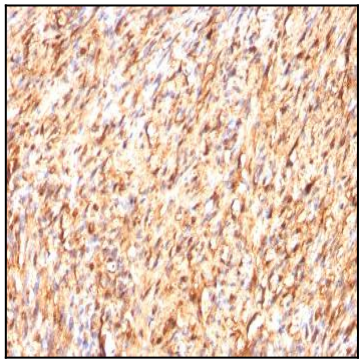

Fig. 2: Formalin-fixed, paraffin-embedded human Schwanoma stained with S100B Mouse Monoclonal Antibody (S100B/1012).

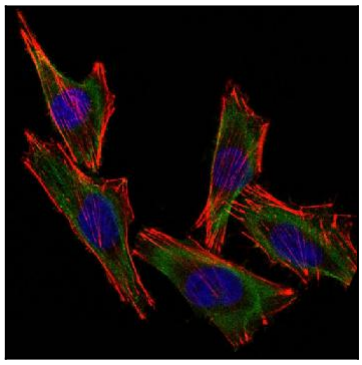

Fig. 3: Confocal Immunofluorescent analysis of A2058 cells using AF488-labeled S100B Monoclonal Antibody (S100B/1012) (Green). F-actin filaments were labeled with DyLight 554 Phalloidin (red). DAPI was used to stain the cell nuclei (blue).

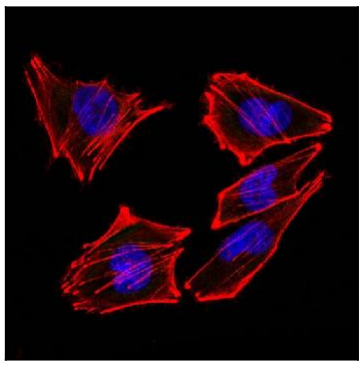

Fig. 4: Confocal Immunofluorescent analysis of A2058 cells using AF488-labeled Isotype Control Monoclonal Antibody (IgG2a) (Green). F-actin filaments were labeled with DyLight 554 Phalloidin (red). DAPI was used to stain the cell nuclei (blue). (Negative Control)

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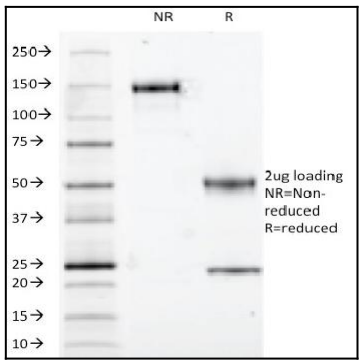

Fig. 5: SDS-PAGE Analysis S100B Mouse Monoclonal Antibody (S100B/1012). Confirmation of Integrity and Purity of Antibody.

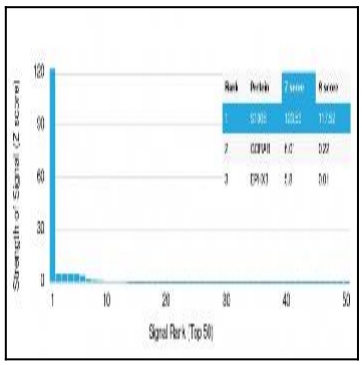

Fig. 6: Analysis of Protein Array containing more than 19,000 full-length human proteins using S100B Mouse Monoclonal Antibody (S100B/1012) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

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