



HISTOPRIME[®]

CatNo E063

S-100 β

Lot: See Label
Storage: +2 to +8 °C
Exp. Date: See Label

Monoclonal Antibody against Human S-100 (β -chain)

Specificity

S-100 represents a group of acidic, dimeric proteins that have a wide distribution in various tissues. Like calmodulin, parvalbumin, and myoglobin, they are calcium-binding and -modulating proteins. Three different dimers are known: S-100a (alpha/beta), S-100b (beta/beta), and S-100ao (alpha/alpha).
The monoclonal antibody E063 is directed against the S-100 β chain and thus only targets cells expressing S-100a or S-100b, but not those containing S-100ao such as neurons, muscle cells or some monocytes and macrophages.

Contents

Reagents sufficient for about 50-100 tissue sections
1 dropper bottle **HISTOPRIME[®] S-100 β** (Bottle, 5 ml)

Normal Tissues

S-100b is normally found in Schwann cells, pituicytes, Langerhans cells, and interdigitating cells, whereas S-100a has been detected in glial cells and melanocytes.

Abnormal Tissues

Thus, monoclonal antibody E063 reacts, among others, with the above cells and with tumors derived from them, such as melanoma, schwannoma and glioma.

Neurons, muscle cells, monocytes, macrophages, undifferentiated carcinomas and lymphomas are usually negative.

Application

Antibody E063 is ready-to-use and can be used on Pronase-treated, formaldehyde-fixed paraffin material or formaldehyde-fixed cryostat material. Pretreatment of formaldehyde-fixed tissue with unmasking liquid such as HISTOSAFE-ENHANCER (Art. No. E7000) may improve staining results.

E063-230109-1/2





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Characterization

Antigen	Purified S-100 β subunit from bovine brain.
Specificity	β chain of S-100a and S-100b, no cross-reactions with calmodulin, parvalbumin, myosin light chain or intestinal calcium-binding protein and S-100 alpha chain.
Abnormal Tissues	Differential diagnosis of intestinal carcinomas and their metastases Merkel cell carcinomas.
Cross-Reactivity	Cross-reaction with S-100 β from rabbit, cat, rat, cattle and pig.
Clone	SH-B1
Isotype	Mouse IgG1
Pretreatment	Pronase (LINARIS CatNo E110) 10 min at RT. Unmasking with HistoSafe Enhancer Unmasking Solution (LINARIS CatNo E7000) 10-20 min at 100°C may be beneficial.
Incubation Period	1 hour by room temperature
Control Tissue	Brain, skin or appendix
Application	Ready-to-use in PBS, BSA, NaN ₃ (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
Recommended Secondary Reagents	Alkaline Phosphatase Vectastain [®] ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Moore B.W.: A soluble protein characteristic of the nervous system. Biochem. Biophys. Res. Comm.: 19; 739-744 (1965)
2. Kindblom L.G., Lodding P., Rosengren L., Baudier J., Haglid K.: S-100 protein in melanocytic tumors. Acta Pathol. Microbiol. Immunol. Scand. Sect. A, 92; 219ff (1984)
3. Lauriola L., Michetti F., Sentinelli S., Cocchia D.: Detection of S-100 labelled cells in nasopharyngeal carcinoma. J. Clin. Pathol. 37; 1235-1238 (1984)
4. Vanstapel M-J., Peeters ., Desmet V., and Mason D. (1985) Methods in Laboratory Investigation: VV B., Cordell J., Heyns W., De Wolf-Peeters ChProduction of monoclonal antibodies directed against antigenic determinants common to the alpha- and beta-chain of bovine brain S-100 protein. Lab. Invest. 52; 232-238.

Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.

(*)Note E063 contains Sodium Azide; take adequate precautions!

E063-230109-2/2

For Research use only. Not for use in diagnostic procedure

Manufacturer

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FIT FOR SCIENCE

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