

HISTOPRIME[®]

CatNo E031

S-100

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

Polyclonal Antibody against S-100 Protein

Specificity

S-100 represents a group of acidic dimeric proteins that have a wide distribution in various tissues. Like calmodulin, parvalbumin, myoglobin, etc., they are calcium-binding and -modulating proteins. Three different dimers are known: S-100a (alpha/beta), S-100b (beta/beta) and S-100aa (alpha/alpha).

The rabbit polyclonal antibody E031 reacts with human S-100a and S-100b. These proteins are typical of glial cells of the brain, ependyma, and Schwann cells of the central and peripheral nervous systems. S-100ao, on the other hand, is found in neurons, striated muscle cells, which usually do not stain or stain weakly with E031.

Contents

Reagents sufficient for about 60-120 tissue sections
1 dropper bottle **HISTOPRIME[®] S-100** (Bottle, 6 ml)

Application

Among human central and peripheral nervous system tumors, S-100 positive reactions are found in schwannomas, ependymomas, and also in astroglomas of various stages including glioblastomas. A large proportion of human tumor cells originating from salivary glands stain positively with S-100. Similarly, it can be detected in almost all nevus cell nevi and malignant melanomas. Langerhans cells in the epidermis react in the same way. In lymph nodes, interdigitating reticulum cells stain with E031.

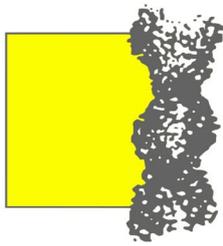
The antibody E031 is directed against bovine S-100 and shows strong cross-reactivity with human protein; furthermore, reactivity with mouse, rat and chicken S-100 was observed.

Fusion Partners

Rabbits were immunized with S-100 antigen isolated from cow brain. The antibody is present as a purified immunoglobulin fraction in stabilized buffer.

E031-230109-1/2





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Characterization

Antigen	Purified S-100 protein from cow brain
Specificity	S-100a and S-100b protein
Cross-reactivity	Cross-reactions with S-100 from human, cat, horse, mouse, rat, cattle and pig
Abnormal Tissues	Melanoma; ependymoma, glioma and schwannoma
Clone	Polyclonal
Isotype	Rabbit Ig
Pretreatment	Proteolytic pretreatment with enzymes not required
Incubation Period	1 hour at room temperature
Control Tissue	Skin, nerve tissue 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 Rabbit IgG (Vector CatNo AK-5001) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Rabbit IgG (Vector CatNo PK-6101) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Moore, B.W. (1965). A soluble protein characteristic of the nervous system. Biochem. Biophys. Res. Comm. 19; 739-744.
2. Kindblom L.-G. Lodding P., Rosengren L., Baudier J., Haglid K. (1984) S-100 protein in melanocytic tumors. Acta Path. Microbiol. Immunol. Scand. Sect. A, 92:219.
3. Laurioal, L., Michetti, F., Sentinelli, S., Cocchia, D.: Detection of S-100 labelled cells in nasopharyngeal carcinoma. J. Clin. Pathol; 37: 12235-8 (1984).
4. Vanstapel M.-J., Peeters B., Cordell J., Heyns W., De Wolf-Peeters Ch., Desmet V., and Mason D. (1985) Methods in Laboratory Investigation: Production 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 E031 contains Sodium Azide; take adequate precautions!

()** With cryostat material there is a risk that the easily soluble S-100 protein will be extracted and therefore not detected. In this case, we recommend fixing with 2% formaldehyde on the slide.

E031-230109-2/2

For Research use only. Not for use in diagnostic procedure

Manufacturer

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FIT FOR SCIENCE

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Page 2 of 2