



Product Information Sheet

Polyclonal Anti- S-100 β (*Magnetic Bead Conjugate*)

Catalogue No. PA1303=M

Lot No. 09H01

Ig type rabbit IgG

Size 100 μ g/vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

ImmunoPrecipitation

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human S-100 β , identical to the related rat and mouse sequence.

Purification

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN₃.

Storage

Store at 4°C for frequent use.

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

S100 calcium binding protein B or S100B is a protein of the S-100 protein family. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21; however, this gene is located at 21q22.3. S100B is a glial-derived protein that is a well-established biomarker for severity of neurological injury and prognosis for recovery.¹ S100 beta is a calcium-binding protein that is expressed at high levels in brain primarily by astrocytes. Addition of the disulfide-bonded dimeric form of S100 beta to primary neuronal and glial cultures and established cell lines induces axonal extension and alterations in astrocyte proliferation and phenotype, but evidence that S100 beta exerts the same effects in vivo has not been presented. Reeves et al. (1994) demonstrated that the same effects of the S100B protein are exerted in vivo. They found that both astrogliosis and neurite proliferation occurred in transgenic mice expressing elevated levels of S100b. They suggested that these transgenic mice represent a useful model for studies of the role of S100B in glial-neuronal interactions in normal development and function of the brain and for analyzing the significance of elevated levels of the protein in Down syndrome and Alzheimer disease.²

REFERENCE

1. Wainwright, M. S.; Craft, J. M.; Griffin, W. S. T.; Marks, A.; Pineda, J.; Padgett, K. R.; Van Eldik, L. J. : Increased susceptibility of S100B transgenic mice to perinatal hypoxia-ischemia. *Ann. Neurol.* 56: 61-67, 2004.
2. Reeves, R. H.; Yao, J.; Crowley, M. R.; Buck, S.; Zhang, X.; Yarowsky, P.; Gearhart, J. D.; Hilt, D. C. : Astrogliosis and axonal proliferation in the hippocampus of S100b transgenic mice. *Proc. Nat. Acad. Sci.* 91: 5359-5363, 1994.