Product Data Sheet
anti-human S100 calcium binding protein A4 monoclonal antibody

Product information

Catalog Number: GM-0908
Clone: NJ-4F3
Description: purified monoclonal mouse antibody
Specificity: anti-human S100 calcium binding protein A4 (S100 A4)
Isotype: IgG1
Purification: Protein G
Storage: short term: 2°C - 8°C; long term: -20°C (avoid repeated freezing and thawing)
Buffer: phosphate buffered saline, pH 7.2
Immunogen: genetic immunisation with cDNA encoding S100 A4
Selection: based on recognition of the complete native protein expressed on transfected mammalian cells

Working dilutions

Flow cytometry: 1.2 µg/10^6 cells
CELISA: 1:200 - 1:400
ELISA: 1:200 - 1:400
For each application a titration should be performed to determine the optimal concentration.

Specificity testing by flow cytometry

![FACS analysis of BOSC23 cells using NJ-4F3 Cat.# GM-0908. BOSC23 cells were transiently transfected with an expression vector encoding either S100 A4 (red curve) or an irrelevant protein (control transfectant: black curve). Binding of NJ-4F3 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with S100 A4 transfected cells.](image)

For research use only. Not for diagnostic or therapeutic use.
CGE analysis of NJ-4F3

The antibody was purified by protein G affinity chromatography from cell culture supernatants and verified by CGE (Fig.2).

![CGE analysis of purified NJ-4F3 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified NJ-4F3 antibody. Proteins were separated by CGE (capillary gel electrophoresis, Agilent 2100 Bioanalyzer). Internal control bands (240 kDa / 7 kDa / 4.5 kDa).](image)

Background

*S100 calcium binding protein A4 (S100A4)* is a member of the S100 family of calcium-binding proteins that contain two Ca(2+)-binding sites including a canonical EF-hand motif. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells. S100A4 interacts with cytoskeletal proteins and enhances metastasis of several types of cancer cells. It is secreted by unknown mechanisms, thus, paracrinely stimulating a variety of cellular responses, including angiogenesis and neuronal growth (1). S100A4 has been shown to be a prognostic marker in a number of human cancers, including esophageal-squamous cancers, non-small lung cancers, primary gastric cancers, malignant melanomas, prostate cancers, bladder cancers, and pancreatic carcinomas. The universality of S100A4 expression in a variety of cancers illustrates the potential use of S100A4 as a marker for tumor metastasis and disease progression (2).

References
