For Research Use Only

S100A1 Monoclonal antibody

Catalog Number:67237-1-Ig

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Basic Information

Catalog Number:
67237-1-Ig

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG19544

GenBank Accession Number:
BC014392

GeneID (NCBI):
6271

UNIPROT ID:
P23297

Full Name:
S100 calcium binding protein A1

Calculated MW:
94 aa, 11 kDa

Purification Method:
Protein G purification

CloneNo.:
1A8C1

Recommended Dilutions:
IHC: 1:16000-1:64000

Applications

Tested Applications:
IHC, ELISA

Species Specificity:
human, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

IHC : human tonsillitis tissue, rat brain tissue

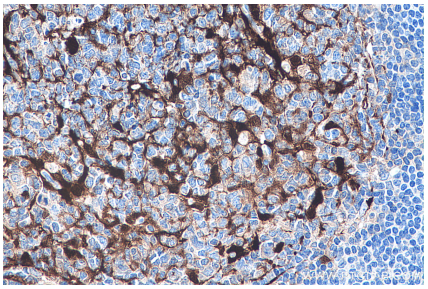
Background Information

S100A1 belongs to the S100 protein family, which represents the largest group among EF-hand Ca2+-binding proteins exclusively expressed in vertebrates. S100 proteins have been described as central regulators of numerous cellular and molecular processes, often operating in a cell-type-specific manner (PMID: 11991838). S100A1 is a central regulator of Ca2+-driven networks that orchestrates compartmentalized Ca2+ fluxes in the heart (PMID: 22336719, PMID: 26021637). S100A1 is primarily expressed in cardiomyocytes (CM). Endothelial cells (EC) express significantly lower S100A1 levels, whereas fibroblasts do not express S100A1 (PMID: 38641766).

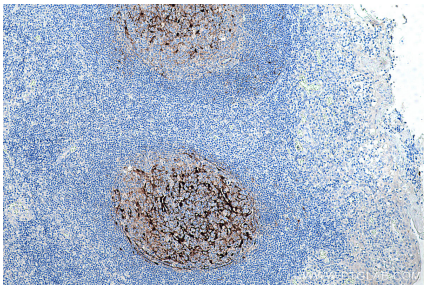
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

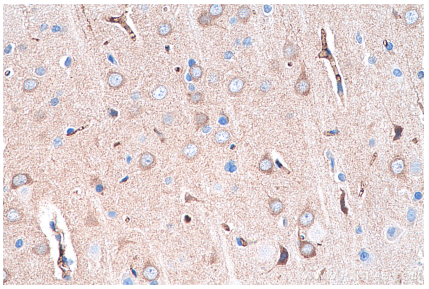
Selected Validation Data



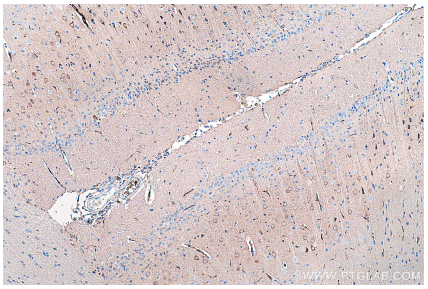
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 67237-1-Ig (S100A1 antibody) at dilution of 1:17000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



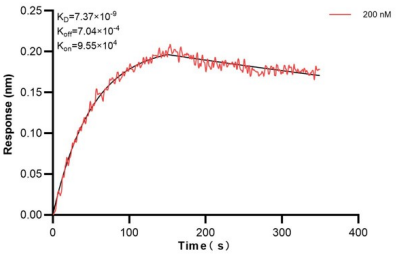
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 67237-1-Ig (S100A1 antibody) at dilution of 1:17000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 67237-1-Ig (S100A1 antibody) at dilution of 1:17000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 67237-1-Ig (S100A1 antibody) at dilution of 1:17000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assay of 67237-1-Ig against Human S100A1 was performed. The affinity constant is 7.37 nM.