# Data Sheet (Cat.No.TMAB-12461)

## Anti-S100B Antibody (7I446)

### Product Details

| | |
|---|---|
| Ig Type: | IgG |
| Reactivity: | Human,Mouse,Rat |
| Molecular Weight: | Theoretical: 10 kDa. Actual: 10 kDa. |
| Clone: | 7I446 |
| Purification: | Protein A purified |

### Applications

Verified Activity:

1. The A375 (H) cells were fixed with 4% PFA (10 min at r. T.) and then permeabilized with 90% ice-cold methanol for 20 min at -20℃, the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at r. T.). Primary Antibody (green): Rabbit Anti-S100B antibody (TMAB-12461): 1:50-100/10^6 cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-BF488: 1 μg/test. Isotype Control (orange): Rabbit IgG. Blank control (black): PBS. Acquisition of 20,000 events was performed.
2. 4% Paraformaldehyde-fixed A375 (H) cell; Triton X-100 at r. T. for 20 min; Antibody incubation with (S100B) monoclonal Antibody, unconjugated (TMAB-12461) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.
3. 25 μg total protein per lane of various lysates (see on figure) probed with S100B monoclonal antibody, unconjugated (TMAB-12461) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r. T. for 60 min.
4. Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
5. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
6. Paraformaldehyde-fixed, paraffin embedded Mouse Cerebellum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
7. Paraformaldehyde-fixed, paraffin embedded Rat Cerebellum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded Human Cerebellum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
9. Paraformaldehyde-fixed, paraffin embedded Rat Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal

Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
10. Paraformaldehyde-fixed, paraffin embedded Human Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
11. Paraformaldehyde-fixed, paraffin embedded Human Pancreas; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
12. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red), DAPI (blue) was used to stain the cell nuclei.
13. Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with S100B Monoclonal Antibody, Unconjugated (TMAB-12461) at 1: 200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red), DAPI (blue) was used to stain the cell nuclei.

| | |
|---|---|
| Application: | WB,IHC-P,IHC-Fr,IF,FCM,ICC/IF |
| Recommended | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1:50-100,ICC/IF=1:50-200 |

## Properties

| | |
|---|---|
| Stability & Storage: | Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. |
| Shipping: | Shipping with blue ice. |

## Antigen Details

| | |
|---|---|
| Immunogen: | A synthesized peptide: human S100B |
| Antigen Species: | Human |
| Gene ID: | 6285 |
| Uniprot ID: | P04271 |

## Research Background

S100 beta is a member of the S100 family of proteins containing 2 EF-hand calcium binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21; however, this gene is located at 21q22.3. This protein may function in neurite extension, proliferation of melanoma cells, stimulation of Ca2+ fluxes, inhibition of PKC mediated phosphorylation, astrocytosis and axonal proliferation, and inhibition of microtubule assembly. Chromosomal rearrangements and altered expression of this gene have been implicated in several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.