

**Recombinant Mouse S100A1 Protein (His tag)****Cat.NO.: TP07864**

3th Edition

**Synonyms:**AI266795;S100;S100a

**Description:**S100A1 is a Ca<sup>2+</sup>-binding protein of the EF-hand type that belongs to the S100 protein family. S100 proteins consisting of at least 19 members exist as dimers in the cytoplasm and/or nucleus of a wide range of cells, and are involved in the regulation of a number of cellular processes such as cell-cycle progression and cell differentiation. This protein has been shown to function in the processes including stimulation of Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release, inhibition of microtubule assembly, and inhibition of PKC-mediated phosphorylation.. Phosphoglucosyltransferase is a target protein whose activity is antagonistically regulated by S100A1, and recently, S100A1 is also identified as a potent molecular chaperone and a new member of the Hsp70/Hsp90 multichaperone complex. S100A1 displays a tissue-specific expression pattern with highest levels in myocardium and is considered to be an important regulator of cardiac contractility. Accordingly, reduced expression or mutations of S100A1 gene have been implicated in cardiomyopathies.

**Form:**PBS**Molecular Weight:**12.5 kDa**Sequences:**Gly 2-Ser 94**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.