

Store at
-20C
#34425**S100A9 (D5O6O) Rabbit mAb (IHC Formulated)**

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IHC-Bond, IHC-P	Reactivity: H	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P06702	Entrez-Gene Id: 6280
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Product Usage Information**Application**

IHC Leica Bond
Immunohistochemistry (Paraffin)

Dilution

1:800
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

S100A9 (D6O5O) Rabbit mAb (IHC Formulated) recognizes endogenous levels of total S100A9 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro107 of human S100A9 protein.

Background

S100A8 and S100A9 are calcium-binding proteins that form a noncovalent heterodimer present in monocytes, neutrophils, macrophages, and some epithelial cells (1,2). S100A8 and S100A9 are secreted by a tubulin-dependent mechanism during inflammatory conditions and have antimicrobial and chemotactic functions (3-5). Extracellular S100A8/S100A9 also induces an inflammatory response in endothelial cells, including induction of proinflammatory chemokines and adhesion molecules and increased vascular permeability (6). S100A8/S100A9 induces and recruits myeloid-derived suppressor cells (MDSC) in tumor-bearing mice (7). MDSC produce additional S100A8/S100A9 themselves, resulting in a positive feedback mechanism that sustains MDSC accumulation (7). S100A8/S100A9 is also highly expressed in psoriatic skin, where it directly upregulates transcription of complement protein C3, which contributes to disease (8). In addition, tumor-infiltrating myeloid cells induce expression of S100A8 and S100A9 in cancer cells, which increases invasiveness and metastasis (9).

Background References

1. Odink, K. et al. (1987) *Nature* 330, 80-2.
2. Edgeworth, J. et al. (1991) *J Biol Chem* 266, 7706-13.
3. Rammes, A. et al. (1997) *J Biol Chem* 272, 9496-502.
4. Steinbakk, M. et al. (1990) *Lancet* 336, 763-5.
5. Ryckman, C. et al. (2003) *J Immunol* 170, 3233-42.
6. Viemann, D. et al. (2005) *Blood* 105, 2955-62.
7. Sinha, P. et al. (2008) *J Immunol* 181, 4666-75.
8. Schonhaler, H.B. et al. (2013) *Immunity* 39, 1171-81.
9. Lim, S.Y. et al. (2016) *Oncogene* 35, 5735-45.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IHC-Bond: IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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