

# THBS4 Antibody

Catalog # ASC11484

## Product Information

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| Application           | WB, IF, E                                                                                                                                                                                                        |
| Primary Accession     | <a href="#">P35443</a>                                                                                                                                                                                           |
| Other Accession       | <a href="#">NP_003239</a> , <a href="#">31543806</a>                                                                                                                                                             |
| Reactivity            | Human, Mouse                                                                                                                                                                                                     |
| Host                  | Rabbit                                                                                                                                                                                                           |
| Clonality             | Polyclonal                                                                                                                                                                                                       |
| Isotype               | IgG                                                                                                                                                                                                              |
| Calculated MW         | 105869                                                                                                                                                                                                           |
| Concentration (mg/ml) | 1 mg/mL                                                                                                                                                                                                          |
| Conjugate             | Unconjugated                                                                                                                                                                                                     |
| Application Notes     | THBS4 antibody can be used for detection of THBS4 by Western blot at 1 - 2 $\mu$ g/mL. Antibody can also be used for immunofluorescence starting at 20 $\mu$ g/mL. For immunofluorescence start at 5 $\mu$ g/mL. |

## Additional Information

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| Gene ID                  | 7060                                                                                                                                                                                                                                          |
| Other Names              | Thrombospondin-4, THBS4, TSP4                                                                                                                                                                                                                 |
| Target/Specificity       | THBS4; At least two isoforms of THBS4 are known to exist; this antibody will only detect the longer isoform.                                                                                                                                  |
| Reconstitution & Storage | THBS4 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Precautions              | THBS4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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| Name     | THBS4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Synonyms | TSP4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Function | Adhesive glycoprotein that mediates cell-to-cell and cell-to- matrix interactions and is involved in various processes including cellular proliferation, migration, adhesion and attachment, inflammatory response to CNS injury, regulation of vascular inflammation and adaptive responses of the heart to pressure overload and in myocardial function and remodeling. Binds to structural extracellular matrix (ECM) proteins and modulates the ECM in response to tissue damage, contributing to cardioprotective and adaptive |

ECM remodeling. Plays a role in ER stress response, via its interaction with the activating transcription factor 6 alpha (ATF6) which produces adaptive ER stress response factors and protects myocardium from pressure overload. May contribute to spinal presynaptic hypersensitivity and neuropathic pain states after peripheral nerve injury. May play a role in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury in a NOTCH1-dependent manner (By similarity).

#### Cellular Location

Endoplasmic reticulum {ECO:0000250|UniProtKB:Q9Z1T2}. Sarcoplasmic reticulum {ECO:0000250|UniProtKB:Q9Z1T2}. Secreted {ECO:0000250|UniProtKB:Q9Z1T2}. Secreted, extracellular space {ECO:0000250|UniProtKB:Q9Z1T2}. Secreted, extracellular space, extracellular matrix {ECO:0000250|UniProtKB:Q9Z1T2}

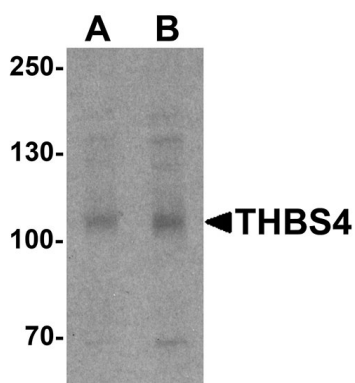
## Background

**THBS4 Antibody:** Thrombospondin-4 (THBS4) belongs to the thrombospondin protein family, a family of adhesive calcium-binding glycoproteins that mediate cell-to-cell and cell-to-matrix interactions. Studies suggest that this protein may be involved in local signaling in the developing and adult nervous system. THBS4 is widely expressed and is abundant in atherosclerotic lesions and in areas prone to the development of lesions. It has been suggested to play an important role in the recruitment of macrophages and the local regulation of inflammation associated with atherogenesis. THBS4 has also been suggested as a putative tumor-suppressor protein in colorectal cancer.

## References

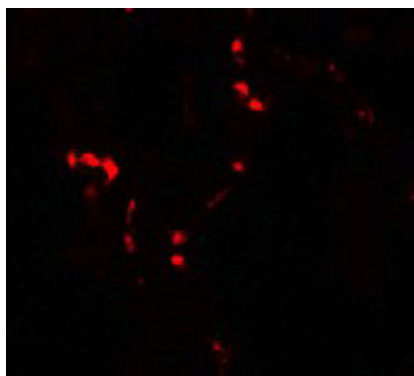
Arber S and Caroni P. Thrombospondin-4, an extracellular matrix protein expressed in the developing and adult nervous system promotes neurite outgrowth. *J. Cell Biol.* 1995; 131:1083-94  
Adams JC and Lawler J. The thrombospondins. *Int. J. Biochem. Cell Biol.* 2004; 36:961-8.  
Frolova EG, Pluskota E, Krukovets I, et al. Thrombospondin-4 regulates vascular inflammation and atherogenesis. *Circ. Res.* 2010; 107:1313-25.  
Greco SA, Chia J, Inglis KJ, et al. Thrombospondin-4 is a putative tumour-suppressor gene in colorectal cancer that exhibits age-related methylation. *BMC Cancer* 2010; 10:494.

## Images



Western blot analysis of THBS4 in mouse lung tissue lysate with THBS4 antibody at (A) 1 and (B) 2 µg/mL.

Immunofluorescence of THBS4 in human lung cells with THBS4 antibody at 20 µg/mL.



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