

## Product Information

### Anti-Spred-2

antibody produced in rabbit, affinity Isolated antibody

Product Number **S7320**

### Product Description

Anti-Spred-2 is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 280-297 of mouse Spred 2, conjugated to KLH via an N-terminal added cysteine residue. The sequence is conserved in rat and differs from the human sequence by three amino acids. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Spred-2 recognizes human, rat, and mouse Spred-2 by immunoblotting (~48 kDa) and indirect immunofluorescence. Staining of the Spred-2 bands in immunoblotting is specifically inhibited by the immunizing peptide.

Signaling by ErbB/HER, as well as by other families of receptors such as VEGF and FGF, are regulated at the positive and negative levels. An increasing number of inhibitory proteins such as RALT/Mig-6, Sprouty, and Spred have been isolated. The mechanisms through which they exert their functions are still a matter of investigation.<sup>1-5</sup> Spred-2, also known as Sprouty protein with EVH-1 domain 2 related sequence, was isolated by similarity to Spred-1, which in turn was isolated from an osteoclast complementary DNA library by a two-hybrid system using c-Kit and c-Fms tyrosine kinase domains as bait.<sup>6</sup> These proteins contain a carboxy-terminal cysteine-rich domain related to Sprouty (the SPR domain), and an amino-terminal Ena/Vasodilator-stimulated phosphoprotein (VASP) homology (EVH-1) domain.<sup>7</sup> Like Sprouty, Spred inhibits growth factor mediated activation of MAP kinase.<sup>6</sup> Spred inhibits the activation of MAP kinase probably by mechanisms such as suppression of phosphorylation and activation of Raf.<sup>6,8</sup> Spred-2 functions as a negative regulator of AGM (aorta-gonad-mesonephros) hematopoiesis by inhibiting hematopoietic cytokine signaling.<sup>9</sup> Spred proteins are also regulators of Rho-mediated cell motility.<sup>10</sup>

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~1.0 mg/mL

### Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

### Product Profile

By immunoblotting, a working antibody concentration of 1-2 µg/mL is recommended using cell extracts of HepG2 (human hepatoma cell line).

By immunoblotting, a working antibody concentration of 2-4 µg/mL is recommended using mouse liver extracts.

By indirect immunofluorescence, a working antibody concentration of 5-10 µg/mL is recommended using rat PC-12 cell lines.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

### References

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CAA/NV 03/06

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