

## Product datasheet for **TA389211**

### SPHK1 Rat Antibody [Clone ID: M540]

#### Product data:

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Clone Name:             | M540  |
| Applications:           | ICC, WB   |
| Recommended Dilution:   | <b>WB:</b> 1:250<br><b>ICC:</b> 1:200   |
| Reactivity:             | Human, Rat, Mouse   |
| Host:                   | Rat   |
| Immunogen:              | Clone M540 was generated from a SK1 synthetic peptide (coupled to carrier) corresponding to amino acids in the C-terminal region of mouse SK1. This sequence has high homology to human and rat SK1, and is not homologous to sequences in SK2. |
| Specificity:            | The antibody detects 42 kDa* full-length recombinant human and mouse SK1 proteins, as well as detects 42, 50, and 60 kDa forms of SK1 in human HeLa cells.  |
| Formulation:            | PBS + 1 mg/ml BSA, 0.05% NaN <sub>3</sub> and 50% glycerol  |
| Concentration:          | lot specific  |
| Purification:           | Antigen Affinity Purified   |
| Conjugation:            | Unconjugated  |
| Storage:                | Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.  |
| Stability:              | After date of receipt, stable for at least 1 year at -20°C.   |
| Predicted Protein Size: | 42  |
| Database Link:          | <a href="#">Q9NYA1</a>  |



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**Background:**

Sphingolipids are metabolized into bioactive products that include ceramide, sphingosine, and sphingosine-1-phosphate (S1P). Sphingosine Kinase (SK) catalyzes the phosphorylation of the lipid sphingosine, creating S1P. S1P subsequently signals through cell surface G protein-coupled receptors, as well as intracellularly, to modulate cell proliferation, survival, motility and differentiation. Two isoforms of SK have been identified, SK1 and SK2. The mRNA for both of these isoforms is widely expressed with SK1 expression highest in brain, heart, kidney, thymus, spleen and lung, while SK2 is highest in kidney and liver. SKs can be activated through growth factor, G protein-coupled, and immunoglobulin receptor signalling. SK1 has been shown to mediate cell growth, prevention of apoptosis, and cellular transformation, and is upregulated in a variety of human tumors. Regulation of SK1 may occur through ERK mediated phosphorylation of Ser-225. This phosphorylation leads to increased activity and translocation to the plasma membrane.

**Note:**

Protein G purified tissue culture supernatant.