



Ksr-1 Polyclonal Antibody

Cat #: ABP56890

Size: 30µl /100µl /200µl

Product Information

	Product Name: Ksr-1 Polyclonal Antibody		
	Applications: WB, IHC-P, IF, ELISA		Isotype: Rabbit IgG
	Reactivity: Human, Mouse		
REF	Catalog Number: ABP56890	LOT	Lot Number: Refer to product label
	Formulation: Liquid		Concentration: 1 mg/ml
	Storage: Store at -20°C. Avoid repeated freeze / thaw cycles.		Note: Contain sodium azide.

Background: KSR1 (kinase suppressor of Ras) was identified from a genetic screen in *Drosophila* and *C. elegans* as a component of the Ras signaling pathway. KSR1 has a putative carboxy-terminal kinase domain that lacks a key Lys residue for phospho-group transfer. Although reports indicate that ceramide and EGF activate KSR1, other evidence demonstrates that KSR1 regulates Raf in a kinase-independent manner. It is now widely accepted that KSR1 functions as a scaffold that binds MEK1/2 and 14-3-3 protein constitutively and binds ERK1/2 in a Ras activation-dependent manner. HSP70/HSP90 and p50 Cdc37 associate with the KSR1 complex to ensure its stability. Multiple phosphorylation sites have been identified: ser297 and Ser392 mediate 14-3-3 binding, and putative MAPK phosphorylation sites include Thr260, Thr274 and Ser443. C-TAK1 (Cdc25C-associated kinase 1) binds and phosphorylates KSR1 at Ser392 in quiescent cells. In response to stimuli, Ser392 is dephosphorylated by PP2A, which leads to ERK1/2 association and allows the KSR1 complex to translocate from cytosol to membrane, where the MAPK pathway is activated. IMP, a Ras-responsive E3 ubiquitin ligase, is also involved in interaction with KSR1 and may regulate its localization and stability. Very high expression levels of KSR1 inhibit MAPK signaling, whereas physiological levels promote MAPK signaling, indicating that the scaffold protein can turn signaling "on" or "off" depending on the scaffold concentration.

Application Notes: Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), IHC-P (1:100-1:300), IF (1:200-1:1000), ELISA (1:20000). Not yet tested in other applications.

Storage Buffer: PBS containing 50% Glycerol, 0.5% BSA and 0.02% Sodium Azide.

Storage Instructions: Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

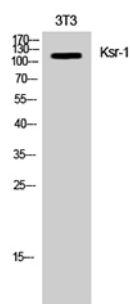


Fig. Western Blot analysis of NIH-3T3 cells using Ksr-1 Polyclonal Antibody.

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