

## Ksr-1 Polyclonal Antibody

### Description

<b>Product type</b>	Primary Antibody
<b>Code</b>	BT-AP04882
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Size</b>	20ul, 50ul, 100ul
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human KSR. AA range:358-407
<b>Mol wt</b>	102032
<b>Species reactivity</b>	Human, Mouse
<b>Clonality</b>	Polyclonal
<b>Recommended application</b>	WB, IHC-p, IF, ELISA
<b>Concentration</b>	1 mg/ml
<b>Full name</b>	Ksr-1 Antibody
<b>Synonyms</b>	KSR1; KSR; Kinase suppressor of Ras 1

**This product is for research use only, not for use in human, therapeutic or diagnostic procedure.**

### 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.

### Recommended Dilution

WB: 1: 500 - 1: 2000

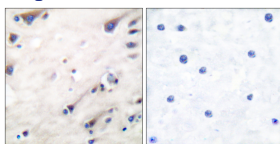
IHC: 1: 100 - 1: 300

IF: 1: 200 - 1: 1000

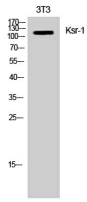
ELISA: 1: 20000

Not yet tested in other applications.

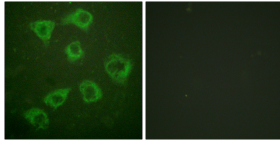
### Images



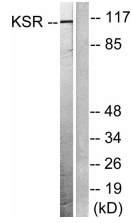
Immunohistochemistry analysis of paraffin-embedded human brain tissue, using KSR Antibody. The picture on the right is blocked with the synthesized peptide.



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



Immunofluorescence analysis of HUVEC cells, using KSR Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from NIH/3T3 cells, treated with PDGF 50ng/ml 20', using KSR Antibody. The lane on the right is blocked with the synthesized peptide.

### Storage

-20°C for one year

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