

Technical Data Sheet

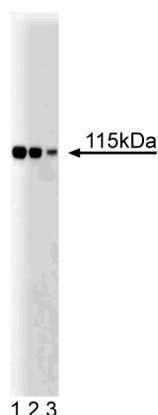
Purified Mouse Anti-KSR-1**Product Information**

Material Number:	611576
Size:	50 µg
Concentration:	250 µg/ml
Clone:	15/KSR-1
Immunogen:	Mouse KSR-1 aa. 90-203
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Target MW:	115 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Proteins of the Ras superfamily play critical roles in the control of normal and neoplastic proliferation. In mammalian cells there are four true Ras proteins (encoded by *Ha-ras*, *N-ras*, *Ki-rasA*, and *Ki-rasB*). These proteins relay signals from tyrosine kinases at the plasma membrane to the nucleus via a network of Ser/Thr kinases that includes the MAP kinase (Raf-MEK-ERK) pathway. Kinase suppressor of Ras (KSR-1) was discovered in a genetic screen to identify mutations that suppress constitutively active Ras mutants. KSR-1 contains five domains that are conserved areas (CA) in *Drosophila*, mouse, and human. CA1 is a unique domain, CA2 is a proline-rich domain, CA3 is a cysteine-rich domain, CA4 is a Ser/Thr rich region, and CA5 contains a C-terminal kinase domain similar to that of Raf. In COS7 cells, ceramide induces the autophosphorylation of KSR-1 and KSR-1-induced phosphorylation and activation of Raf. In addition, overexpression of KSR-1 in 293T cells leads to recruitment of MEK to a 700 kDa protein complex and translocates MEK from the soluble to the membrane-associated fraction. Thus, KSR-1 may have important kinase and scaffolding activities during Ras-related signaling.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of KSR-1 on a RSV-3T3 lysate.
Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the anti- KSR-1 antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Michaud NR, Therrien M, Cacace A, et al. KSR stimulates Raf-1 activity in a kinase-independent manner. *Proc Natl Acad Sci U S A*. 1997; 94(24):12792-12796. (Biology)

Stewart S, Sundaram M, Zhang Y, Lee J, Han M, Guan KL. Kinase suppressor of Ras forms a multiprotein signaling complex and modulates MEK localization. *Mol Cell Biol*. 1999; 19(8):5523-5534. (Biology)

Therrien M, Chang HC, Solomon NM, Karim FD, Wassarman DA, Rubin GM. KSR, a novel protein kinase required for RAS signal transduction. *Cell*. 1995; 83(6):879-888. (Biology)

Zhang Y, Yao B, Delikat S, et al. Kinase suppressor of Ras is ceramide-activated protein kinase. *Cell*. 1997; 89(1):63-72. (Biology)