abcam

ab278551

Anti-KSR1 (phospho S392) antibody [KSR1S392-3A4]

Recombinant | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human KSR1 pS392. The exact immunogen used to generate this antibody is proprietary information. Database link Q8IVT5
Clone number	KSR1S392-3A4
Purification technique	Affinity purification Protein A/G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	0.001-1 µg/mL
Notes	-

Species	Human

Dilution info	0.001-1 µg/mL
Notes	-

Target data

See full target information KSR1 pS392

Function	Part of a multiprotein signaling complex which promotes phosphorylation of Raf family members and activation of downstream MAP kinases (By similarity). Independently of its kinase activity, acts as MAP2K1/MEK1 and MAP2K2/MEK2-dependent allosteric activator of BRAF; upon binding to MAP2K1/MEK1 or MAP2K2/MEK2, dimerizes with BRAF and promotes BRAF-mediated phosphorylation of MAP2K1/MEK1 and/or MAP2K2/MEK2 (PubMed:29433126). Promotes activation of MAPK1 and/or MAPK3, both in response to EGF and to cAMP (By similarity). Its kinase activity is unsure (By similarity). Some protein kinase activity has been detected in vitro, however the physiological relevance of this activity is unknown (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	KSR1 also known as Kinase Suppressor of Ras 1 serves as an important scaffold protein in cellular signaling. Weighing around 87 kDa KSR1 localizes in both the cytoplasm and the membrane of cells and shows expression in various tissues including the brain lung and ovaries. KSR1 does not have kinase activity itself but influences the activity of other kinases through its interactions.
Biological function summary	KSR1 exerts a regulatory role by organizing multi-protein complexes necessary for effective Ras and Raf signaling. This protein helps assemble the mitogen-activated protein kinase (MAPK) cascade complex which plays an essential role in cell growth and differentiation. As an important scaffolding component KSR1 enhances the efficiency of signal transduction pathways by facilitating the spatial organization of kinases involved in MAPK/ERK signaling.
Pathways	Signaling through KSR1 significantly impacts the MAPK/ERK and Ras pathways both of which are important for transmitting extracellular signals to the nucleus. KSR1 interacts with c-Raf MEK1/2 and ERK1/2 within these pathways forming a bridge that allows effective transduction of signals necessary for various cellular responses. By providing a platform for these kinases KSR1 ensures precise regulation of the signaling processes that control cell proliferation and survival.
Associated diseases and disorders	Dysfunction in KSR1 activity associates with cancer and neurodegenerative disorders. KSR1 aberrations can contribute to oncogenic Ras-driven cancers due to its central role in controlling the Ras signaling pathway. Furthermore irregular KSR1 expression also links to neurodegenerative diseases through its impact on MAPK/ERK signaling. Proteins such as c-Raf and ERK1/2 which interact with KSR1 also play roles in these pathologies emphasizing the potential of KSR1 as a target for therapeutic interventions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

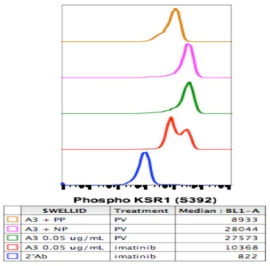
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

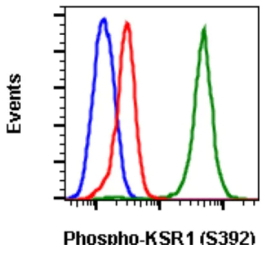
3 product images



Flow Cytometry - Anti-KSR1 (phospho S392) antibody [KSR1S392-3A4] (ab278551)

KSR1 (phospho S392) Flow Cytometry staining using rabbit Anti-KSR1 (phospho S392) antibody

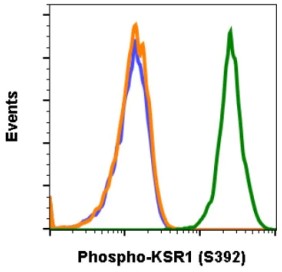
Flow cytometric analysis of K562 (human chronic myelogenous leukemia cell line from bone marrow) cells secondary antibody only negative control (blue) treated with imatinib (red) treated with PV (green) treated with PV + blocked with non-phospho peptide (violet) or treated with PV + blocked with phospho-peptide (brown) using ab278551 at 0.05 µg/ml.



Flow Cytometry - Anti-KSR1 (phospho S392) antibody [KSR1S392-3A4] (ab278551)

KSR1 (phospho S392) Flow Cytometry staining using rabbit Anti-KSR1 (phospho S392) antibody

Flow cytometric analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells untreated and unstained as negative control (blue) or treated with lambda phosphatase and stained (red) or untreated and stained (green) using ab278551 at 0.1 µg/ml.



Flow Cytometry - Anti-KSR1 (phospho S392) antibody [KSR1S392-3A4] (ab278551)

KSR1 (phospho S392) Flow Cytometry staining using rabbit Anti-KSR1 (phospho S392) antibody

Flow cytometric analysis of NIH/3T3 (mouse embryo fibroblast cell line) cells secondary antibody only (blue) or 0.1 µg/ml of isotype control (orange) or ab278551 (green).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.