

Datasheet: AHP2270

Description:	RABBIT ANTI p62 (pThr269/pSer272)
Specificity:	p62 (pThr269/pSer272)
Other names:	sequestosome, SQSTM1
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting (1)	■			1/1000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) **For the detection of phosphoproteins, phosphatase inhibitors should always be added freshly to the lysis buffer. Milk or other casein-based blocking solutions are generally not recommended for blocking; as casein is itself a phosphoprotein its use can result in high background.**

Target Species	Human
Species Cross Reactivity	Based on sequence similarity, is expected to react with: Primate N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid

Antiserum Preparation Antiserum to p62 (pThr269/pSer272) was raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns

Buffer Solution	HEPES buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 50% Glycerol
Immunogen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr269/Ser272 region of human p62

**External Database
Links**

UniProt:

[Q13501](#) [Related reagents](#)

Entrez Gene:

[8878](#) SQSTM1 [Related reagents](#)

Synonyms

ORCA, OSIL

Specificity

Rabbit anti p62 (pThr269/pSer272) antibody recognizes ubiquitin-binding protein p62, also known as sequestosome-1 and EBI3-associated protein of 60 kDa (EBIAP), when phosphorylated at threonine 269 and serine 272. p62 is important in regulating critical cellular functions, including bone homeostasis, obesity, and cancer via its interactions with various signaling intermediaries. The SQSTM1 gene encodes a multifunctional protein that binds ubiquitin and regulates activation of the nuclear factor kappa-B (NF-κB) signaling pathway. p62 functions as a scaffolding/adaptor protein in concert with TNF receptor-associated factor 6 to mediate activation of NF-κB in response to upstream signals.

p62 plays an important role in bone remodeling, regulating this process through its role in a chemical signaling pathway that promotes the formation of osteoclasts. p62 may be involved autophagy ([Zhang et al. 2016](#)), the self-destruction of cells (apoptosis), and the body's immune responses and inflammatory reactions.

p62 is an integral component of inclusions in brains of various neurodegenerative disorders, including Alzheimer disease (AD) neurofibrillary tangles (NFTs) and Lewy bodies in Parkinson disease ([Kurosawa et al. 2016](#)). p62 plays an important role in the protection of cells from the toxicity of misfolded proteins by enhancing aggregate formation especially in the later stages([Wang et al. 2014](#)).

p62 is overexpressed in many human cancers and is induced during cell transformation. cdk1 phosphorylates p62 *in vitro* and *in vivo* at T269 and S272, which is necessary for the maintenance of appropriate cyclin B1 levels and the levels of cdk1 activity necessary to allow cells to properly enter and exit mitosis ([Linares et al. 2011](#)). The lack of cdk1-mediated phosphorylation of p62 leads to a faster exit from mitosis, translating into enhanced cell proliferation and tumorigenesis in response to Ras-induced transformation.

Western Blotting

Rabbit anti Human p62 (pThr269/pSer272) detects a band of approximately 62 kDa in Jurkat cell lysate

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

12 months from date of despatch

**Health And Safety
Information**

Material Safety Datasheet documentation #10088 available at:
10088: <https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin , FITC , HRP
Sheep Anti Rabbit IgG (2AB02...)	Biotin
Sheep Anti Rabbit IgG (STAR36...)	DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800

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