Technical Data Sheet

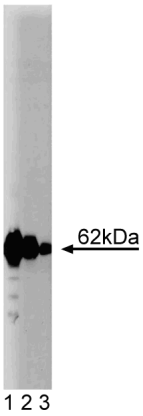
# Purified Mouse Anti-p62 lck ligand

## Product Information

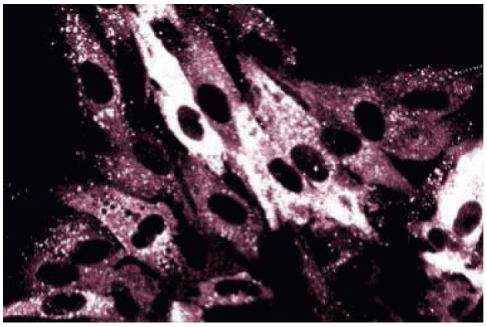
| | |
|---|---|
| **Material Number:** | **610832** |
| **Alternate Name:** | Zeta Interacting Protein (ZIP); SQSMT1 |
| **Size:** | 50 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 3/P62 LCK LIGAND |
| **Immunogen:** | Human p62 lck ligand aa. 257-437 |
| **Isotype:** | Mouse IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Target MW:** | 62 kDa |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

p62 lck ligand (zeta-interacting protein (ZIP)) is a cytoplasmic protein that binds to the SH2 domain of lck (a T cell src tyrosine kinase) in the absence of a phosphotyrosine in either protein. The ubiquitously expressed p62 lck ligand contains a cysteine rich region that is similar to a zinc finger domain, a G protein binding region, a PEST sequence, and several phosphorylation sites. Deletion of the p62 lck ligand N-terminal domain has been reported to abrogate its binding to lck. However, mutation of the tyrosine did not have an effect. In addition, p62 lck ligand binds to the pseudosubstrate region of the PKCζ catalytic domain. In turn, PKCζ phosphorylates p62. p62 lck ligand binds to the dimerization region of PKCζ, thereby inhibiting PKCζ-PKCζ interaction. This suggests that p62 lck ligand may compete with PKCζ. However, it requires PKCζ for proper subcellular localization. These data suggest that p62 lck ligand may be part of the protein bridge that links PKCζ to the tyrosine kinases involved in signaling pathways.




***Western blot analysis of p62 lck ligand on a HCT-8 (human colorectal adenocarcinoma; ATCC CCL-244) cell lysate.*** *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the anti-p62 lck ligand antibody.*



***Immunofluorescence staining on FHs cells (normal human fetal lung fibroblasts; ATCC HTB-157).***

## Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

## Application Notes

**Application**

| | |
|---|---|
| Western blot | Routinely Tested |
| Immunofluorescence | Tested During Development |
| Immunoprecipitation | Not Recommended |
| Immunohistochemistry | Not Recommended |

**BD Biosciences**

bdbiosciences.com

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 866.979.9408 | 32.2.400.98.95 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit **bdbiosciences.com/contact**

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611474 | HCT-8 Cell Lysate | 500 µg | (none) |
| 554002 | HRP Goat Anti-Mouse Ig | 1 mL | (none) |
| 554001 | FITC Goat Anti-Mouse Ig | 0.5 mg | Polyclonal |

## 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

## References


Bjørkøy G, Lamark T, Pankiv S, Øvervatn A, Brech A, Johansen T. Monitoring autophagic degradation of p62/SQSTM1. *Methods Enzymol.* 2009; 452:181-197. (Clone-specific)

Cariou B, Perdereau D, Cailliau K, et al. The adapter protein ZIP binds Grb14 and regulates its inhibitory action on insulin signaling by recruiting protein kinase Czeta. *Mol Cell Biol.* 2002; 22(20):6959-6970. (Biology: Western blot)

Joung I, Strominger JL, Shin J. Molecular cloning of a phosphotyrosine-independent ligand of the p56lck SH2 domain. *Proc Natl Acad Sci U S A.* 1996; 93(12):5991-5995. (Biology: Western blot)

Puls A, Schmidt S, Grawe F, Stabel S. Interaction of protein kinase C zeta with ZIP, a novel protein kinase C-binding protein. *Proc Natl Acad Sci U S A.* 1997; 94(12):6191-6196. (Biology)

Wooten MW, Seibenhener ML, Mamidipudi V, Diaz-Meco MT, Barker PA, Moscat J. The atypical protein kinase C-interacting protein p62 is a scaffold for NF-kappaB activation by nerve growth factor. *J Biol Chem.* 2001; 276(11):7709-7712. (Biology: Immunoprecipitation, Western blot)



**BD Biosciences**

bdbiosciences.com

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 866.979.9408 | 32.2.400.98.95 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit **bdbiosciences.com/contact**