



# SZABO SCANDIC

Part of Europa Biosite

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Diagnostik & molekulare Diagnostik



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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## MAPK3 & DUSP1 Protein Protein Interaction Antibody Pair

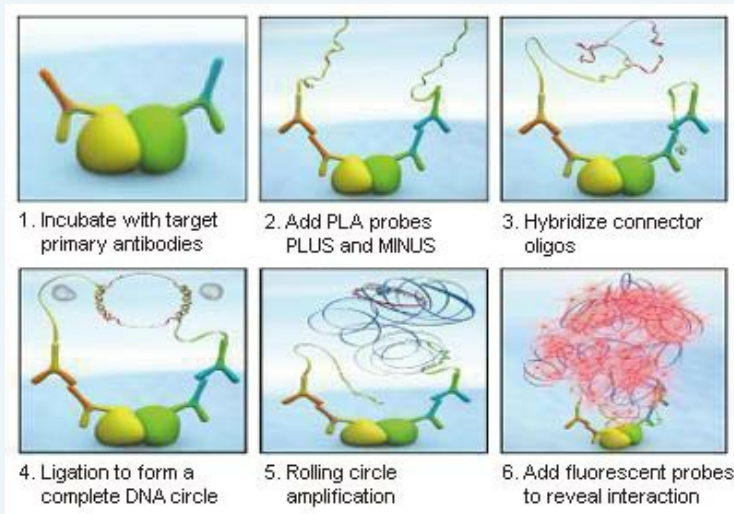
Catalog # : DI0359

規格 : [ 1 Set ]

List All

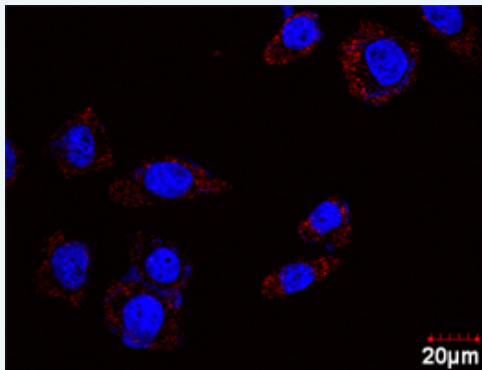
### Specification

**Product Description:** This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the MAPK3 protein, and the other against the DUSP1 protein for use in *in situ* Proximity Ligation Assay. See Publication Reference below.



**Reactivity:** Human

**Quality Control Testing:** Protein protein interaction immunofluorescence result.



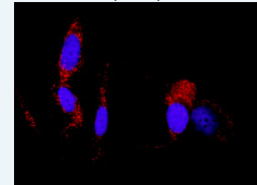
Representative image of Proximity Ligation Analysis of protein-protein interactions between MAPK3 and DUSP1. HeLa cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware ([BlobFinder](#)) download from The Centre for Image Analysis at Uppsala University.

**Supplied Product:** Antibody pair set content:  
 1. MAPK3 rabbit purified polyclonal antibody (20 ug)  
 2. DUSP1 mouse monoclonal antibody (40 ug)  
 \*Reagents are sufficient for at least 30-50 assays using recommended protocols.

**Storage Instruction:** Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze thaw cycle. Reagents should be returned to -

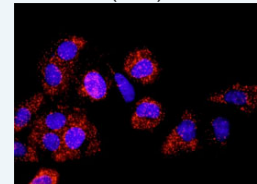
### Application Image

*In situ* Proximity Ligation Assay (Cell)



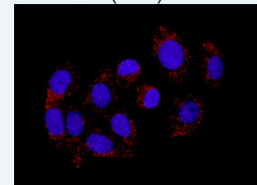
[enlarge](#)

*In situ* Proximity Ligation Assay (Cell)



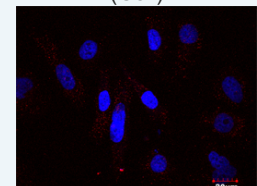
[enlarge](#)

*In situ* Proximity Ligation Assay (Cell)



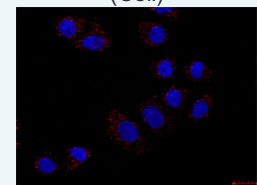
[enlarge](#)

*In situ* Proximity Ligation Assay (Cell)



[enlarge](#)

*In situ* Proximity Ligation Assay (Cell)



[enlarge](#)

20°C storage immediately after use.

MSDS:

 [Download](#)

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### Publication Reference

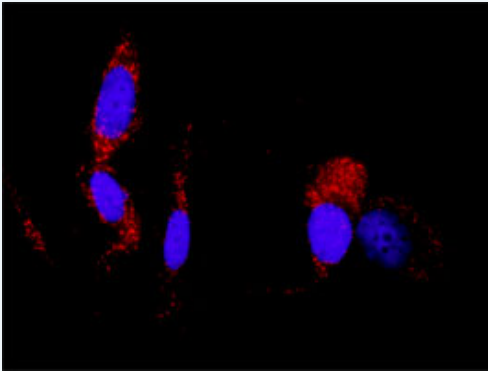
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1. [An analysis of protein-protein interactions in cross-talk pathways reveals CRKL as a novel prognostic marker in hepatocellular carcinoma.](#)  
Liu CH, Chen TC, Chau GY, Jan YH, Chen CH, Hsu CN, Lin KT, Juang YL, Lu PJ, Cheng HC, Chen MH, Chang CF, Ting YS, Kao CY, Hsiao M, Huang CY. Mol Cell Proteomics. 2013 Feb 8. [Epub ahead of print]
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### Applications

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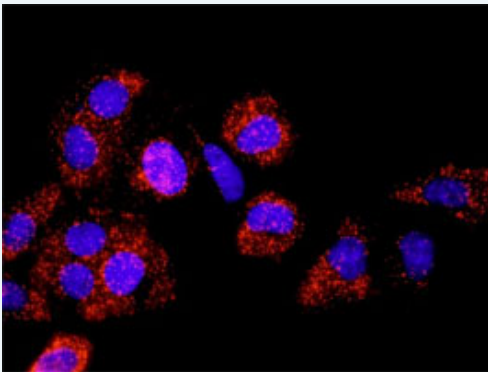
#### *In situ* Proximity Ligation Assay (Cell)



Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. PC-3 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

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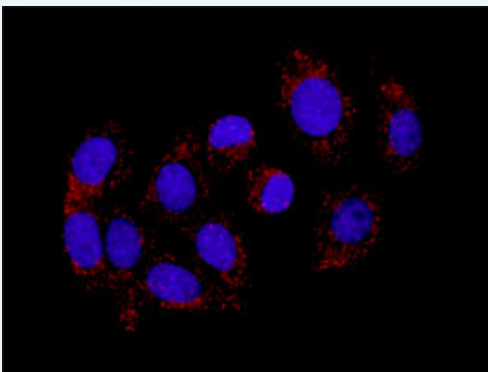
#### *In situ* Proximity Ligation Assay (Cell)



Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. A-549 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

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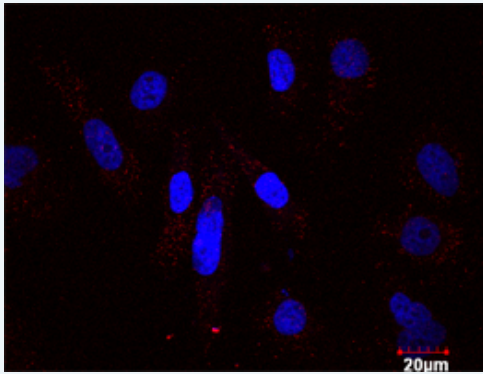
#### *In situ* Proximity Ligation Assay (Cell)



Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. HT-29 cells were stained with anti-MAPK3 rabbit purified polyclonal

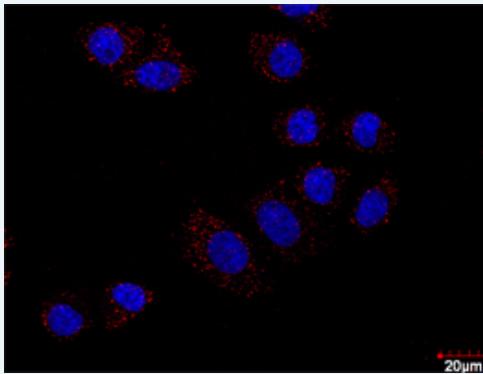
antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

#### ***In situ* Proximity Ligation Assay (Cell)**



Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. PC-3 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

#### ***In situ* Proximity Ligation Assay (Cell)**



Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. HT-29 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

DUSP1 MAPK3

#### **Gene Information**

**Entrez GeneID:** [5595](#)

**Gene Name:** MAPK3

**Gene Alias:** ERK1,HS44KDAP,HUMKER1A,MGC20180,P44ERK1,P44MAPK,PRKM3

**Gene Description:** mitogen-activated protein kinase 3

**Omim ID:** [601795](#)

**Gene Ontology:** [Hyperlink](#)

**Gene Summary:** The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response to a variety of extracellular signals. This kinase is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Alternatively spliced

transcript variants encoding different protein isoforms have been described. [provided by RefSeq]

**Other Designations:** OTTHUMP00000174538,OTTHUMP00000174540,extracellular signal-regulated kinase 1,extracellular signal-related kinase 1

### Gene Information

**Entrez GeneID:** [1843](#)

**Gene Name:** DUSP1

**Gene Alias:** CL100,HVH1,MKP-1,MKP1,PTPN10

**Gene Description:** dual specificity phosphatase 1

**Omim ID:** [600714](#)

**Gene Ontology:** [Hyperlink](#)

**Gene Summary:** The expression of DUSP1 gene is induced in human skin fibroblasts by oxidative/heat stress and growth factors. It specifies a protein with structural features similar to members of the non-receptor-type protein-tyrosine phosphatase family, and which has significant amino-acid sequence similarity to a Tyr/Ser-protein phosphatase encoded by the late gene H1 of vaccinia virus. The bacterially expressed and purified DUSP1 protein has intrinsic phosphatase activity, and specifically inactivates mitogen-activated protein (MAP) kinase in vitro by the concomitant dephosphorylation of both its phosphothreonine and phosphotyrosine residues. Furthermore, it suppresses the activation of MAP kinase by oncogenic ras in extracts of *Xenopus* oocytes. Thus, DUSP1 may play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation. [provided by RefSeq]

**Other Designations:** serine/threonine specific protein phosphatase

### Interactome

