

# anti-SMAD2-RAB-S220



## Applications

Competition ELISA	Western Blot	SPR	Spiked IP	Immunofluorescence	IP-MS	ChIP
Pass			Pass	Pass		

\*rAb has been tested for the following applications. See below for the experimental details.

## Antibody information

**rAb ID:** anti-SMAD2-RAB-S220

**Description:** recombinant Fab fragment obtained by recombinant antibody (rAb) phage display recognizing *SMAD2* protein under non-denaturing conditions; specificity and affinity tested.

**Binder type:** rAb **Isotype:** IgG1 **Species:** *Homo sapiens* **Produced in:** *E. coli* **rAb tags:** Avi-tag; Flag-tag

**Specificity:** reacts with *Homo sapiens* SMAD2 **Epitope:** binds to folded domain amino acids 55-202

**Storage conditions:** short term – store at 4°C (over 6 months), long term - PBS -20°C or -80°C

**Link:** <http://recombinant-antibodies.org/binders/anti-SMAD2-RAB-S220>

## Antigen information

**Protein Name:** SMAD family member 2

**HGNC Symbol:** SMAD2 **HGNC ID:** 6768 **Species:** *Homo sapiens*

**UniProt AC:** Q15796 **UniProt KB:** SMAD2\_HUMAN

**Protein Sequence:**

MSGLNDIFEAQKIEWHEHHHHHHENLYFQSHMTGRLDELEKAITTQNCNTKCVTIPSTCSEIWGLSTPNTIDQWDTTGLYS  
FSEQTRSLDGRQLQVSHRKG LPHVIYCRLWRWDLHSHHELKAIENCEYAFNLKKDEV CVNPHYHYQRVETPVLPPVLVPRH  
TEILTELPPLDDYTHSIPE

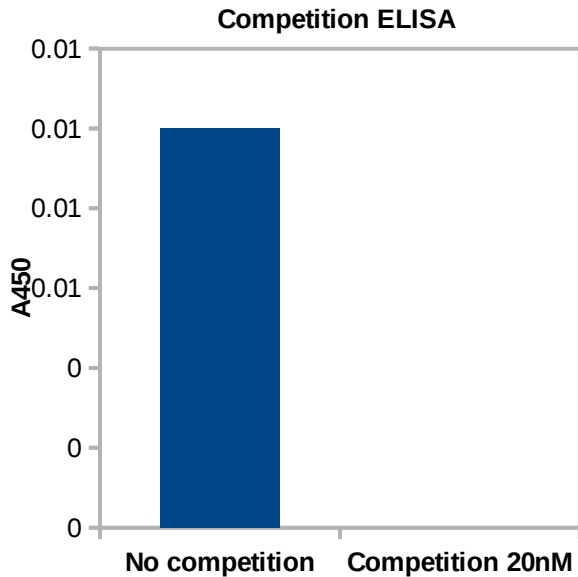
**Tag N-terminus:** MSGLNDIFEAQKIEWHEHHHHHHENLYFQSHM **Tag C-terminus:**

**Vector Type:** pET15Avi6HT\_NESG **Vector Link:** [http://beta.labgeni.us/registries/DNASU/pET15Avi6HT\\_NESG/](http://beta.labgeni.us/registries/DNASU/pET15Avi6HT_NESG/)

**Protein Sequence Position:** 55-202 **Antigen source:** *E. coli* **Source Lab:** Rutgers **Source Lab ID:** HR4670B.006

**Description:** affinity purified recombinant protein

## Validation data



**Single point competition phage ELISA** Plot represents specific binding of a target to the rAb-phage in solution (right bar) in comparison to binding to the target immobilized on the plate surface (left bar). Experimental conditions were calibrated to capture binders with dissociation Constant ( $K_D$ ): 20nM or lower.

**Experimental Conditions:** Culture supernatants containing rAb-phage were diluted five-fold in phosphate-buffered saline, 0.5% (w/v) BSA, 0.1% (v/v) Tween 20 either with or without soluble antigen competitor at 20 nM. After 1 h incubation at room temperature, the mixtures were transferred to neutravidin coated plates preloaded with 50  $\mu$ L of 20 nM biotinylated antigen and incubated for 15 min. The plates were washed with phosphate-buffered saline, 0.05% (v/v) Tween 20 and incubated for 30 min with horse radish peroxidase/anti-M13 antibody conjugate (1:5000 dilution). The plates were washed, developed with 3,3',5,5'-Tetramethyl-benzidine/ $H_2O_2$  peroxidase substrate (Thermo Scientific), quenched with 1M  $H_3PO_4$ , and the absorbance at 450 nm (A450) was determined.

### Spiked IP:

**Status:** Pass

Experimental Conditions: <http://recombinant-antibodies.org/protocols/spiked-IP>

### Immunofluorescence:

**Status:** Pass

Experimental Conditions: <http://recombinant-antibodies.org/protocols/immunofluorescence>

### IP-MS – immunoprecipitation for mass spectrometric analysis:

**Status:**

Experimental Conditions: <http://recombinant-antibodies.org/protocols/IP-MS>

### ChIP – chromatin immunoprecipitation:

**Status:**

Experimental Conditions: Pending

### IP – immunoprecipitation:

**Status:**

Experimental Conditions: Pending

### SP Elisa:

**Status:**

Experimental Conditions: <http://recombinant-antibodies.org/protocols/ELISA-IC50-EC50-direct-coating>

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