10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# FGFR2 Antibody
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7637E**

## Specification

### FGFR2 Antibody - Product Information

| | |
|---|---|
| Application | **IF, WB, IHC-P, FC,E** |
| Primary Accession | P21802 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |

### FGFR2 Antibody - Additional Information

**Gene ID** 2263

**Other Names**
Fibroblast growth factor receptor 2, FGFR-2, K-sam, KGFR, Keratinocyte growth factor receptor, CD332, FGFR2, BEK, KGFR, KSAM

**Target/Specificity**
This FGFR2 antibody is generated from rabbits immunized with a his tag recombinant protein of human FGFR2.

**Dilution**
IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
FGFR2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### FGFR2 Antibody - Protein Information

**Name** FGFR2

**Synonyms** BEK, KGFR, KSAM

**Function** Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.

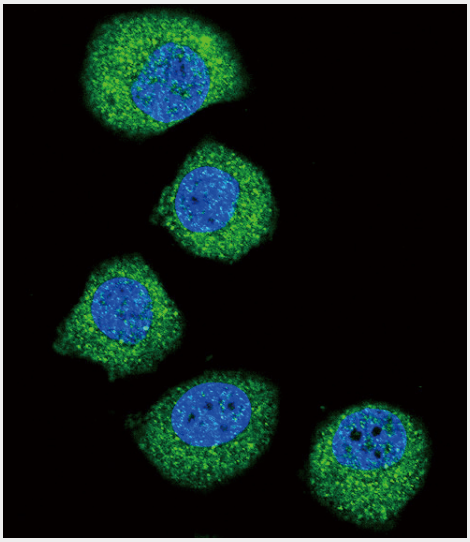
**Cellular Location**
Cell membrane; Single-pass type I membrane protein. Golgi apparatus. Cytoplasmic vesicle. Note=Detected on osteoblast plasma membrane lipid rafts. After ligand binding, the activated receptor is rapidly internalized and degraded [Isoform 3]: Cell membrane; Single-pass type I membrane protein. Note=After ligand binding, the activated receptor is rapidly internalized and degraded [Isoform 13]: Secreted.

## FGFR2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

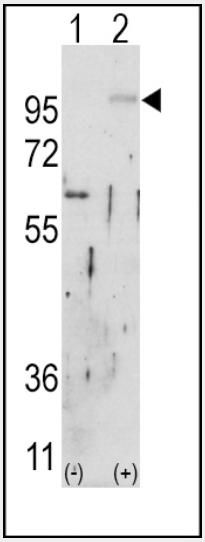
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## FGFR2 Antibody - Images

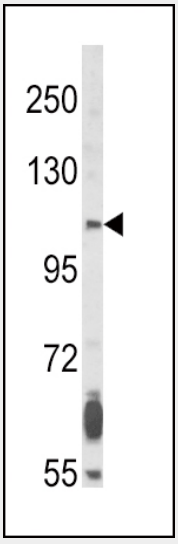


10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Confocal immunofluorescent analysis of FGFR2 Antibody(Cat#AP7637e) with U251 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

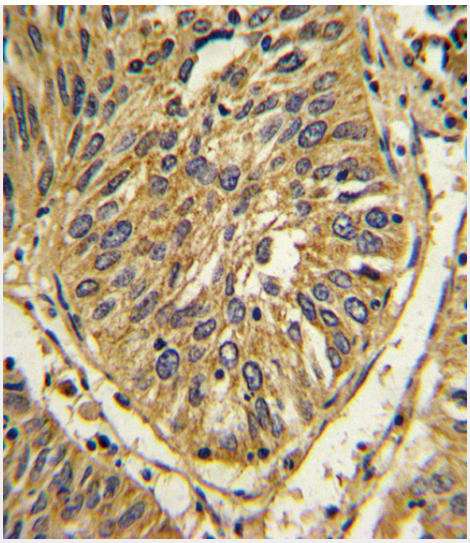



Western blot analysis of FGFR2 (arrow) using rabbit polyclonal FGFR2 Antibody (Cat.#AP7637e). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the FGFR2 gene (Lane 2) (Origene Technologies).

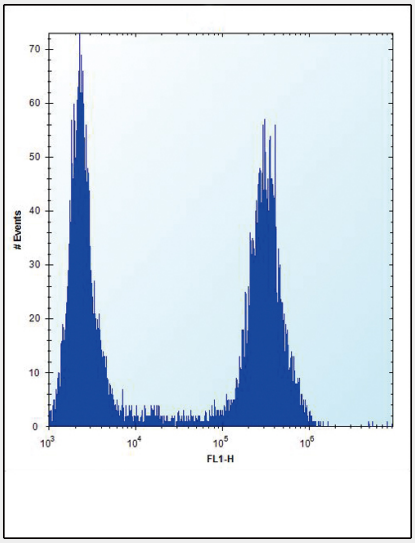



Western blot analysis of FGFR2 Antibody (Cat.#AP7637e) in NCI-H460 cell line lysates (35ug/lane). SFGFR2 (arrow) was detected using the purified Pab.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Formalin-fixed and paraffin-embedded human lung carcinoma with FGFR2 Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.




FGFR2-Antibody(Cat. #AP7637e) flow cytometric analysis of U251 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

**FGFR2 Antibody - Background**

FGFR2 is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein consists of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member is a high-affinity receptor for acidic, basic and/or keratinocyte growth factor, depending on the isoform. Mutations in FGFR2 gene are associated with Crouzon syndrome, Pfeiffer syndrome, Craniosynostosis, Apert syndrome, Jackson-Weiss syndrome, Beare-Stevenson cutis gyrata syndrome, Saethre-Chotzen syndrome, and syndromic craniosynostosis.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

## FGFR2 Antibody - References

Park W.-J., Meyers G.A., Li X.Hum. Mol. Genet. 4:1229-1233(1995)
Lajeunie E., Wei M.H., Bonaventure J.Nat. Genet. 9:108-108(1995)
Rutland P., Pulleyn L.J., Reardon W., Baraister M.Nat. Genet. 9:173-176(1995)
McGillivray G., Savarirayan R., Cox T.C.J. Med. Genet. 42:656-662(2005)