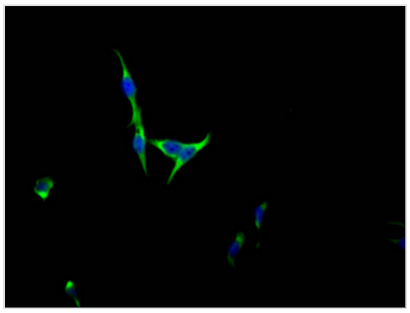
FGFR3 Antibody

Product Code	CSB-RA555849A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P22607
Immunogen	A synthesized peptide derived from human FGFR3
Species Reactivity	Human
Tested Applications	ELISA, IF; Recommended dilution: IF:1:20-1:200
Relevance	Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation and apoptosis. Plays an essential role in the regulation of chondrocyte differentiation, proliferation and apoptosis, and is required for normal skeleton development. Regulates both osteogenesis and postnatal bone mineralization by osteoblasts. Promotes apoptosis in chondrocytes, but can also promote cancer cell proliferation. Required for normal development of the inner ear. Phosphorylates PLCG1, CBL and FRS2. 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. Plays a role in the regulation of vitamin D metabolism. Mutations that lead to constitutive kinase activation or impair normal FGFR3 maturation, internalization and degradation lead to aberrant signaling. Over-expressed or constitutively activated FGFR3 promotes activation of PTPN11/SHP2, STAT1, STAT5A and STAT5B. Secreted isoform 3 retains its capacity to bind FGF1 and FGF2 and hence may interfere with FGF signaling.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Signal transduction; Stem cells
Gene Names	FGFR3
Accession NO.	5B6

Image



Immunofluorescence staining of HepG2 Cells with CSB-RA555849A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

FGFR3 is a tyrosine kinase receptor that can bind to fibroblast growth factors, triggering a cascade of downstream signals that affect cell growth, migration, angiogenesis, and differentiation. FGFR3 suppresses chondrocyte proliferation in the growth plate and limits bone elongation. Genetic instability and aneuploidy have been linked to FGFR3 mutations. In growth plate chondrocytes, gain-of-function FGFR3 mutations produce dwarfism, lower telomerase activity, and shorter telomeres, implying that FGFR3 diminishes proliferative ability, represses telomerase, and accelerates senescence.

The recombinant FGFR3 antibody was generated in vitro through inserting cloned FGFR3 genes into expression vectors. The expression vector was then inserted into a mammalian cell to express this FGFR3 antibody. It has been validated in ELISA, IF. Every step in the production was controlled strictly. You have no worries about the quality.