

## **Product datasheet for SC208150**

## PIP5K3 (PIKFYVE) (NM 152671) Human 3' UTR Clone

**Product data:** 

**Product Type:** 3' UTR Clones

Product Name: PIP5K3 (PIKFYVE) (NM\_152671) Human 3' UTR Clone

Symbol: PIP5K3

Synonyms: CFD; FAB1; HEL37; PIP5K; PIP5K3; ZFYVE29

Mammalian Cell

Selection:

Neomycin

**Vector:** pMirTarget (PS100062)

**ACCN:** NM\_152671

**Insert Size:** 555 bp

Insert Sequence: >SC208150 3'UTR clone of NM\_152671

The sequence shown below is from the reference sequence of NM\_152671. The complete

sequence of this clone may contain minor differences, such as SNPs.

Blue=Stop Codon Red=Cloning site

GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG

TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC

AAA

CGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGG

**Restriction Sites:** Sgfl-Mlul

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the sequence identifier above as a

point of reference. Note that the complete sequence of this clone is largely the same as the

reference sequence but may contain minor differences, e.g., single nucleotide

polymorphisms (SNPs).



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## PIP5K3 (PIKFYVE) (NM\_152671) Human 3' UTR Clone - SC208150

**Components:** The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The

package also includes 100 pmols of both the corresponding 5' and 3' vector primers in

separate vials.

**RefSeq:** <u>NM 152671.4</u>

**Summary:** Phosphorylated derivatives of phosphatidylinositol (PtdIns) regulate cytoskeletal functions,

membrane trafficking, and receptor signaling by recruiting protein complexes to cell- and endosomal-membranes. Humans have multiple PtdIns proteins that differ by the degree and position of phosphorylation of the inositol ring. This gene encodes an enzyme (PIKfyve; also known as phosphatidylinositol-3-phosphate 5-kinase type III or PIPKIII) that phosphorylates the D-5 position in PtdIns and phosphatidylinositol-3-phosphate (PtdIns3P) to make PtdIns5P and PtdIns(3,5)biphosphate. The D-5 position also can be phosphorylated by type I PtdIns4P-5-kinases (PIP5Ks) that are encoded by distinct genes and preferentially phosphorylate D-4 phosphorylated PtdIns. In contrast, PIKfyve preferentially phosphorylates D-3 phosphorylated PtdIns. In addition to being a lipid kinase, PIKfyve also has protein kinase activity. PIKfyve regulates endomembrane homeostasis and plays a role in the biogenesis of endosome carrier vesicles from early endosomes. Mutations in this gene cause corneal fleck dystrophy (CFD); an autosomal dominant disorder characterized by numerous small white flecks present in all layers of the corneal stroma. Histologically, these flecks appear to be keratocytes distended with lipid and mucopolysaccharide filled intracytoplasmic vacuoles. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided

by RefSeq, May 2010]

**Locus ID:** 200576

MW: 21.2