ARG82563
Mouse FGFR4 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82563-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82563-002	Standard	2 X 10 ng/vial	4°C
ARG82563-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82563-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82563-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82563-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82563-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82563-008	25X Wash buffer	20 ml	4°C
ARG82563-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG82563-010	STOP solution	10 ml (Ready to use)	4°C
ARG82563-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG82563 Mouse FGFR4 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Mouse FGFR4 in serum, plasma (EDTA, heparin, citrate) and cell culture supernatants.
Tested Reactivity	Ms
Tested Application	ELISA
Target Name	FGFR4
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	62.3 pg/ml
Sample Type	Serum, plasma (EDTA, heparin, citrate) and cell culture supernatants.
Standard Range	156 - 10000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 4.9% Inter-Assay CV: 5.9%

Alternate Names	TKF; FGFR-4; CD antigen CD334; JTK2; CD334; EC 2.7.10.1; Fibroblast growth factor receptor 4

Application Instructions

Assay Time	~ 5 hours

Properties

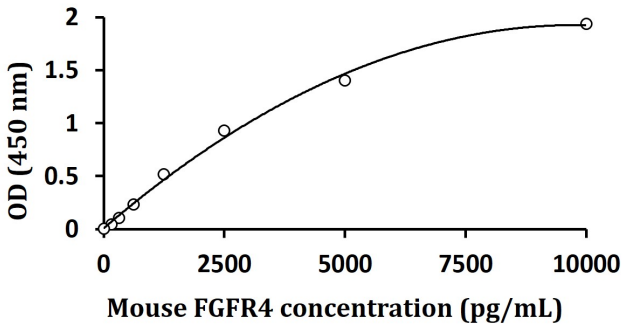
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	FGFR4
Gene Full Name	fibroblast growth factor receptor 4
Background	The protein encoded by this gene 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 would consist 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. The genomic organization of this gene, compared to members 1-3, encompasses 18 exons rather than 19 or 20. Although alternative splicing has been observed, there is no evidence that the C-terminal half of the IgIII domain of this protein varies between three alternate forms, as indicated for members 1-3. This particular family member preferentially binds acidic fibroblast growth factor and, although its specific function is unknown, it is overexpressed in gynecological tumor samples, suggesting a role in breast and ovarian tumorigenesis. [provided by RefSeq, Jul 2008]
Function	Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down-regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 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. Promotes SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Mutations that lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling. [UniProt]
Highlight	Related products: FGFR4 antibodies; FGFR4 ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	N-glycosylated. Full maturation of the glycan chains in the Golgi is essential for high affinity interaction with FGF19. Ubiquitinated. Subject to proteasomal degradation when not fully glycosylated. Autophosphorylated. Binding of FGF family members together with heparan sulfate proteoglycan or heparin promotes receptor dimerization and autophosphorylation on tyrosine residues. Autophosphorylation occurs in trans between the two FGFR molecules present in the dimer. [UniProt]

Cellular Localization	Cell membrane; Single-pass type I membrane protein. Endosome. Endoplasmic reticulum. Note=Internalized from the cell membrane to recycling endosomes, and from there back to the cell membrane. Isoform 2: Secreted. Isoform 3: Cytoplasm. [UniProt]

Images



ARG82563 Mouse FGFR4 ELISA Kit standard curve image

ARG82563 Mouse FGFR4 ELISA Kit results of a typical standard run with optical density reading at 450 nm.