SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

PRODUCT INFORMATION

FGFR3 Extracellular Domain (human, recombinant)

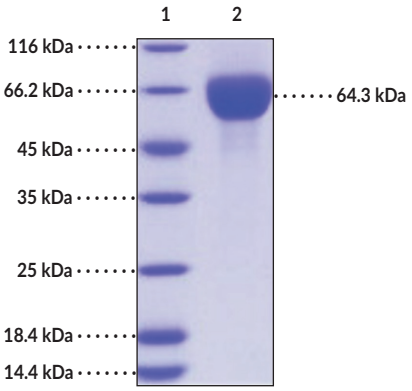
Item No. 37023

Overview and Properties

Synonyms:	ACH, CD333, Fibroblast Growth Factor Receptor 3
Source:	Recombinant human C-terminal His-tagged FGFR3 extracellular domain expressed in HEK293 cells
Amino Acids:	23-375
Uniprot No.:	P22607
Molecular Weight:	39.6 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥95% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing:	<1.0 EU/µg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: FGFR3 Extracellular Domain

SDS-PAGE Analysis of FGFR3 Extracellular Domain. This protein has a calculated molecular weight of 39.6 kDa. It has an apparent molecular weight of approximately 64.3 kDa by SDS-PAGE under reducing conditions due to glycosylation.

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION

Description

Fibroblast growth factor receptor 3 (FGFR3) is a growth factor receptor with roles in early mammalian skeletal development and post-embryonic linear bone growth.[1] It is composed of an N-terminal extracellular domain, which contains three immunoglobulin-like (Ig-like) domains and includes the FGF ligand-binding domain, an acidic box, and a CAM-homology domain, a transmembrane domain, and a C-terminal tyrosine kinase domain.[2] FGFR3 is broadly expressed in the midfacial mesenchyme and basicranial and paranasal cartilage during embryonic development but is only expressed in the perichondrium and proliferating zone chondrocytes by 10 to 13 weeks gestation.[3] Upon ligand binding, FGFR3 dimerizes resulting in autophosphorylation of the tyrosine kinase domain and activation of various intracellular signaling pathways, including the ERK/MAPK pathway.[4] Gain-of-function mutations in *FGFR3* induce achondroplasia, the most common form of dwarfism in humans.[1] Mutations in *FGFR3* also induce Muenke syndrome, a craniosynostosis with features including hearing loss, carpal and tarsal anomalies, and behavioral and developmental deficits.[5] Cayman's FGFR3 Extracellular Domain (human, recombinant) protein consists of 364 amino acids, has a calculated molecular weight of 39.6 kDa, and a predicted N-terminus of Glu23 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 64.3 kDa due to glycosylation.

References

1. Narayana, J. and Horton, W.A. FGFR3 biology and skeletal disease. *Connect. Tissue Res.* **56(6)**, 427-433 (2015).
2. Bocharov, E.V., Lesovoy, D.M., Goncharuk, S.A., *et al.* Structure of FGFR3 transmembrane domain dimer: Implications for signaling and human pathologies. *Structure* **21(11)**, 2087-2093 (2013).
3. Britto, J.A., Evans, R.D., Hayward, R.D., *et al.* From genotype to phenotype: The differential expression of FGF, FGFR, and TGFβ genes characterizes human cranioskeletal development and reflects clinical presentation in FGFR syndromes. *Plast. Reconstr. Surg.* **108(7)**, 2026-2039 (2001).
4. Böttcher, R.T. and Niehrs, C. Fibroblast growth factor signaling during early vertebrate development. *Endocr. Rev.* **26(1)**, 63-77 (2005).
5. Murali, C.N., McDonald-McGinn, D.M., Wenger, T.L., *et al.* Muenke syndrome: Medical and surgical comorbidities and long-term management. *Am. J. Med. Genet. A.* **179(8)**, 1442-1450 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM