

Type III iodothyronine deiodinase (Dio3) Recombinant Protein | Dio3 recombinant protein

Recombinant Rat Type III iodothyronine deiodinase (Dio3), partial

CATALOG # AAA115110	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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PRODUCT SYNONYMS

Type III iodothyronine deiodinase (Dio3); Recombinant Rat Type III iodothyronine deiodinase (Dio3); partial; 5DIII; DIOIII; Type 3 DI; Type-III 5'-deiodinase; Dio3 recombinant protein

PRODUCT SPECIFICATIONS

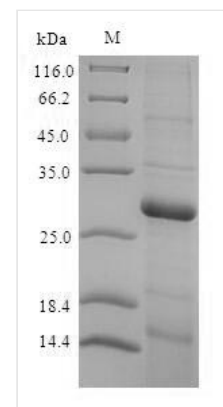
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	63-304aa (170:U->missing); partial
Sequence	DFLCIRKHFL RRRHPDHPEP EVELNSEGEE MPPDDPPICV SDDNRLCTLA SLKAVWHGQK LDDFKQAHEG GPAPNSEVVR PDGFQSQRIL DYAQGTRPLV LNFGSCTPPF MARMSAFQRL VTKYQRDVDF LIIYIEEAHP SDGWVTTDSP YVIPQHRSL EDRVSAARVLQ QGAPGCALVL DTMANSSSSA YGAYFERLYV IQSGTIMYQG GRGPDGYQVS ELRTWLERYD EQLHGTRPRR L
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES

Score	Expect	Method	Identities	Positives	Gap	
621 bits(1602)	0.0	Compositional matrix adjust.	303/304(99%)	303/304(99%)	1/3	
Query 1	MFRQAA	SLVYVCEGPPGAS:PAATMLRSL	LLHSLCAQTASCLVLPFRPLCTAFMLV	60		
Subject 1	MFRQAA	SLVYVCEGPPGAS:PAATMLRSL	LLHSLCAQTASCLVLPFRPLCTAFMLV	60		
Query 61	LLDPLCIRKHFLRRRHPDHPEP	EVELNSEGEE	MPPDDPPICVSDNRLCTLA	SLKAVWHG	120	
Subject 61	LLDPLCIRKHFLRRRHPDHPEP	EVELNSEGEE	MPPDDPPICVSDNRLCTLA	SLKAVWHG	120	
Query 121	QKLPFFQAHEGCPAPNSEVVR	PDGFQSQRIL	DYAQGTRPLV	LNFGSCTPPF	MARMSAF	180
Subject 121	QKLPFFQAHEGCPAPNSEVVR	PDGFQSQRIL	DYAQGTRPLV	LNFGSCTPPF	MARMSAF	179
Query 181	QRLVTKYQRDVDFLLIYIEEAHP	SDGWVTTDSP	YVIPQHRSL	EDRVSAARVL	QGAPGCA	240
Subject 180	QRLVTKYQRDVDFLLIYIEEAHP	SDGWVTTDSP	YVIPQHRSL	EDRVSAARVL	QGAPGCA	239
Query 241	LVLDTMANSSSSAYGAYFERLY	IQSGTIMYQ	GRGPDGYQVS	ELRTWLERYD	EQLHGTR	300
Subject 240	LVLDTMANSSSSAYGAYFERLY	IQSGTIMYQ	GRGPDGYQVS	ELRTWLERYD	EQLHGTR	299
Query 301	PERL	304				
Subject 300	PERL	303				

Application Data

AAA115110 Recombinant Rat Thyroxine 5-deiodinase(Dio3), Expression Region: 63-304aa is missing the aa 'U' at the 170 site (see dash -, line Sbjct 121-179).



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for Dio3 recombinant protein

Responsible for the deiodination of T4 (3,5,3',5'-tetraiodothyronine) into RT3 (3,3',5'-triiodothyronine) and of T3 (3,5,3'-triiodothyronine) into T2 (3,3'-diiodothyronine). RT3 and T2 are inactive metabolites. May play a role in preventing prature exposure of developing fetal tissues to adult levels of thyroid hormones. Can regulate circulating fetal thyroid hormone concentrations throughout gestation. Essential role for regulation of thyroid hormone inactivation during embryological development.

References

Genome sequence of the Brown Norway rat yields insights into mammalian evolution.Gibbs R.A., Weinstock G.M., Metzker M.L., Muzny D.M., Sodergren E.J., Scherer S., Scott G., Steffen D., Worley K.C., Burch P.E., Okwuonu G., Hines S., Lewis L., Deramo C., Delgado O., Dugan-Rocha S., Miner G., Morgan M., Hawes A., Gill R., Holt R.A., Adams M.D., Amanatides P.G., Baden-Tillson H., Barnstead M., Chin S., Evans C.A., Ferriera S., Fosler C., Glodek A., Gu Z., Jennings D., Kraft C.L., Nguyen T., Pfannkoch C.M., Sitter C., Sutton G.G., Venter J.C., Woodage T., Smith D., Lee H.-M., Gustafson E., Cahill P., Kana A., Doucette-Stamm L., Weinstock K., Fechtel K., Weiss R.B., Dunn D.M., Green E.D., Blakesley R.W., Bouffard G.G., De Jong P.J., Osoegawa K., Zhu B., Marra M., Schein J., Bosdet I., Fjell C., Jones S., Krzywinski M., Mathewson C., Siddiqui A., Wye N., McPherson J., Zhao S., Fraser C.M., Shetty J., Shatsman S., Geer K., Chen Y., Abramzon S., Nierman W.C., Havlak P.H., Chen R., Durbin K.J., Egan A., Ren Y., Song X.-Z., Li B., Liu Y., Qin X., Cawley S., Cooney A.J., D'Souza L.M., Martin K., Wu J.Q., Gonzalez-Garay M.L., Jackson A.R., Kalafus K.J., McLeod M.P., Milosavljevic A., Virk D., Volkov A., Wheeler D.A., Zhang Z., Bailey J.A., Eichler E.E., Tuzun E., Birney E., Mongin E., Ureta-Vidal A., Woodwark C., Zdobnov E., Bork P., Suyama M., Torrents D., Alexandersson M., Trask B.J., Young J.M., Huang H., Wang H., Xing H., Daniels S., Gietzen D., Schmidt J., Stevens K., Vitt U., Wingrove J., Camara F., Mar Alba M., Abril J.F., Guigo R., Smit A., Dubchak I., Rubin E.M., Couronne O., Poliakov A., Huebner N., Ganten D., Goesele C., Hummel O., Kreitler T., Lee Y.-A., Monti J., Schulz H., Zimdahl H., Himmelbauer H., Lehrach H., Jacob H.J., Bromberg S., Gullings-Handley J., Jensen-Seaman M.I., Kwitek A.E., Lazar J., Pasko D., Tonellato P.J., Twigger S., Ponting C.P., Duarte J.M., Rice S., Goodstadt L., Beatson S.A., Emes R.D., Winter E.E., Webber C., Brandt P., Nyakatura G., Adetobi M., Chiaromonte F., Elnitski L., Eswara P., Hardison R.C., Hou M., Kolbe D., Makova K., Miller W., Nekrutenko A., Riemer C., Schwartz S., Taylor J., Yang S., Zhang Y., Lindpaintner K., Andrews T.D., Caccamo M., Clamp M., Clarke L., Curwen V., Durbin R.M., EyraS E., Searle S.M., Cooper G.M., BatzogluS., Brudno M., Sidow A., Stone E.A., Payseur B.A., Bourque G., Lopez-Otin C., Puente X.S., Chakrabarti K., Chatterji S., Dewey C., Pachter L., Bray N., Yap V.B., Caspi A., Tesler G., Pevzner P.A., Haussler D., Roskin K.M., Baertsch R., Clawson H., Furey T.S., Hinrichs A.S., Karolchik D., Kent W.J., Rosenbloom K.R., Trumbower H., Weirauch M., Cooper D.N., Stenson P.D., Ma B., Brent M., Arumugam M., Shteynberg D., Copley R.R., Taylor M.S., Riethman H., Mudunuri U., Peterson J., Guyer M., Felsenfeld A., Old S., Mockrin S., Collins F.S.Nature 428:493-521(2004) Cloning and expression of a cDNA for a mammalian type III iodothyronine deiodinase.Croteau W., Whittemore S.L., Schneider M.J., St Germain D.L.J. Biol. Chem. 270:16569-16575(1995)

NCBI AND UNIPROT INFORMATION

NCBI GI #	255982585
NCBI GeneID	29475
NCBI Accession #	NP_058906.3
NCBI GenBank Nucleotide #	NM_017210.3
UniProt Accession #	P49897
Molecular Weight	29.5 kDa
NCBI Official Full Name	thyroxine 5-deiodinase
NCBI Official Synonym Full Names	deiodinase, iodothyronine, type III
NCBI Official Symbol	Dio3
NCBI Official Synonym Symbols	5DIII; DIOIII
NCBI Protein Information	thyroxine 5-deiodinase
UniProt Protein Name	Thyroxine 5-deiodinase
UniProt Gene Name	Dio3
UniProt Synonym Gene Names	Itid3; Txd3
UniProt Entry Name	IOD3_RAT

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