

Recombinant rat Type III iodothyronine deiodinase

Catalog No: #AP72941



Package Size: #AP72941-1 20ug #AP72941-2 100ug #AP72941-3 1mg

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Description

Product Name	Recombinant rat Type III iodothyronine deiodinase
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:37-278aaSequence Info:Extracellular Domain
Other Names	5DIIDIIOIIIType 3 DIType-III 5'-deiodinase
Accession No.	P49897
Uniprot	P49897
GeneID	29475;
Calculated MW	29.5 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	DFLCIRKHFLRRRHPDHPEPEVELNSEGEEMPDDPPICVSDDNRLCTLASLKAVWHGQKLDFFKQAHEGGP APNSEVVRPDGFGSQRILDYAQGTRPLVLNFGSCTUPPFMARMSAFQRLVTKYQRDVFLLIYIEEAHPSDGW VTTDSPYVIPQRSLEDRVSAARVLQGGAPGCALVLDTMANSSSSAYGAYFERLYVIQSGTIMYQGGGRPDG YQVSELRTWLERYDEQLHGTRPRRL
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

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 bryological 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., Ferreira 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., Eyraes E., Searle S.M., Cooper G.M., Batzoglou S., 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) Research Topic: Others

Note: This product is for in vitro research use only