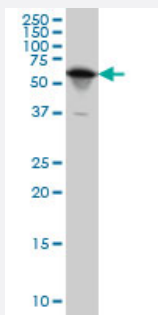


YARS monoclonal antibody (M02), clone 2F3

Catalog # H00008565-M02

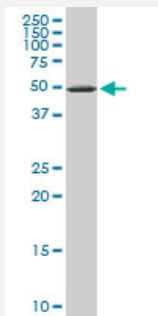
Size 50 ug

Applications



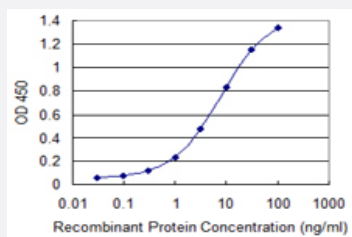
Western Blot (Cell lysate)

YARS monoclonal antibody (M02), clone 2F3 Western Blot analysis of YARS expression in HeLa (Cat # L013V1).



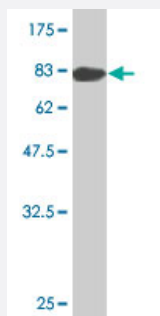
Western Blot (Cell lysate)

YARS monoclonal antibody (M02), clone 2F3. Western Blot analysis of YARS expression in NIH/3T3(Cat # L018V1).



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged YARS is 0.1 ng/ml as a capture antibody.



Western Blot detection against Immunogen (83.82 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant YARS.
Immunogen	YARS (AAH01933, 1 a.a. ~ 528 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MGDAPSPEEKLHLITRNLQEVLGEEKLKEILKERELKIYWGTTGKPHVAYFVPMISKIADFLKAGC EVTILFADLHAYLDNMKAPWELLELRVSYENVIKAMLESIGVPLEKLKFIKGTDYQLSKEYTLDVYR LSSVVTQHDSKKAGAEVVKQVEHPLL SGLLYPGLQALDEEYLVKDAQFGGIDQRKIFTFAEKYLP ALGYSKRVHLMNPMVPGLTGSKMSSSEESKIDLLDRKEDVKKKLKKAFCPEGNVENNGVLSFI KHVLFPLKSEFVILRDEKWGGNKTYTAYVDLEKDFAAEVVHPGDLKNSVEVALNKLLDPIREKFNT PALKKLASAAYDPSPKQKPMAGPAKNSEPEEVIPSRDLIRVGKIITVEKHPDADSLYVEKIDVGE AEPRTVVSGLVQFVPKEELQDRLVVVLCNLKPQKMRGVESQGMLLCASIEGINRQVEPLDPPAG SAPGEHVFVKGYEKGQPDEELKPKKKVFEKLQADFKISEECIAQWKQTNFMTKLGSISCKSLKG GNIS
Host	Mouse
Reactivity	Human, Mouse
Interspecies Antigen Sequence	Rat (95)
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (83.82 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

YARS monoclonal antibody (M02), clone 2F3 Western Blot analysis of YARS expression in HeLa (Cat # L013V1).

[Protocol Download](#)

- Western Blot (Cell lysate)

YARS monoclonal antibody (M02), clone 2F3. Western Blot analysis of YARS expression in NIH/3T3(Cat # L018V1).

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged YARS is 0.1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

Gene Info — YARS

Entrez GeneID

[8565](#)

GeneBank Accession#

[BC001933](#)

Protein Accession#

[AAH01933](#)

Gene Name

YARS

Gene Alias

CMTDIC, TYRRS, YRS, YTS

Gene Description

tyrosyl-tRNA synthetase

Omim ID

[603623](#) [608323](#)

Gene Ontology

[Hyperlink](#)

Gene Summary

Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. Tyrosyl-tRNA synthetase belongs to the class I tRNA synthetase family. Cytokine activities have also been observed for the human tyrosyl-tRNA synthetase, after it is split into two parts, an N-terminal fragment that harbors the catalytic site and a C-terminal fragment found only in the mammalian enzyme. The N-terminal fragment is an interleukin-8-like cytokine, whereas the released C-terminal fragment is an EMAP II-like cytokine. [provided by RefSeq]

Other Designations

OTTHUMP00000004027|tyrosine tRNA ligase 1, cytoplasmic

Publication Reference

- [Tyrosyl-tRNA synthetase has a noncanonical function in actin bundling.](#)

Biljana Ermanoska, Bob Asselbergh, Laura Morant, Maria-Luise Petrovic-Erfurth, Seyyedmohsen Hosseinibarkooie, Ricardo Leitão-Gonçalves, Leonardo Almeida-Souza, Sven Bervoets, Litao Sun, LaTasha Lee, Derek Atkinson, Akram Khanghahi, Ivaylo Tournev, Patrick Callaerts, Patrik Verstreken, Xiang-Lei Yang, Brunhilde Wirth, Avital A Rodal, Vincent Timmerman, Bruce L Goode, Tanja A Godenschwege, Alben Jordanova.

Nature Communications 2023 Mar; 14(1):999.

Application: IF, Fruit fly, Fruit fly larval

- [Transcriptional dysregulation by a nucleus-localized aminoacyl-tRNA synthetase associated with Charcot-Marie-Tooth neuropathy.](#)

Bervoets S, Wei N, Erfurth ML, Yusein-Myashkova S, Ermanoska B, Mateiu L, Asselbergh B, Blocquel D, Kakad P, Penserga T, Thomas FP, Guergueltcheva V, Tournev I, Godenschwege T, Jordanova A, Yang XL.

Nature Communications 2019 Nov; 10(1):5045.

Application: WB, Fruit fly, Human, Fruit fly heads, HEK 293T cells

- [Impaired protein translation in Drosophila models for Charcot-Marie-Tooth neuropathy caused by mutant tRNA synthetases.](#)

Niehues S, Bussmann J, Steffes G, Erdmann I, Kohrer C, Sun L, Wagner M, Schafer K, Wang G, Koerdts SN, Stum M, RajBhandary UL, Thomas U, Aberle H, Burgess RW, Yang XL, Dieterich D, Storkebaum E.

Nature Communications 2015 Jul; 6:7520.

Application: IS, Drosophila, Motor neurons

- [Dominant mutations in the tyrosyl-tRNA synthetase gene recapitulate in Drosophila features of human Charcot-Marie-Tooth neuropathy.](#)

Storkebaum E, Leitao-Goncalves R, Godenschwege T, Nangle L, Mejia M, Bosmans I, Ooms T, Jacobs A, Van Dijck P, Yang XL, Schimmel P, Norga K, Timmerman V, Callaerts P, Jordanova A.

Proceedings of the National Academy of Sciences of the United States of America 2009 Jul; 106(28):11782.

Application: WB, Drosophila, Head

Pathway

- [Aminoacyl-tRNA biosynthesis](#)