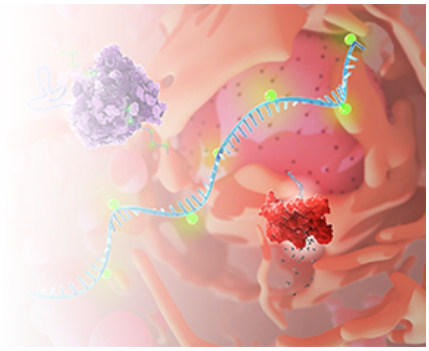


IVTScrip™ mRNA-Human ACO1, (Cap 1, 5-Methoxy-UTP, 120 nt-poly(A))

Cat. No.: GTTS-WK11531MR

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product overview

This product GTTS-WK11531MR is a type of mRNA having 120 nt poly(A) tail and modified with Cap 0 & 5-Methoxy-UTP. It ecodes the ACO1 protein. This product can be used in Oogenesis phase fetal germ cell-related researches.

Specifications

Modified bases	5-Methoxy-UTP
5' Cap	Cap 1
Species	Human
RefSeq	NM_001278352.2
Applications	Gene therapy research
Format	Powder
Quantity	100 µg
Purification	Chromatography

SPECIFICATIONS

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GENE INFORMATION

Alternative Names	IRP1; ACONS; HEL60; IREB1; IREBP; IREBP1
Description	The protein encoded by this gene is a bifunctional, cytosolic protein that functions as an essential enzyme in the TCA cycle and interacts with mRNA to control the levels of iron inside cells. When c ellular iron levels are high, this protein binds to a 4Fe-4S cluster and functions as an aconitase. Ac onitases are iron-sulfur proteins that function to catalyze the conversion of citrate to isocitrate. Wh en cellular iron levels are low, the protein binds to iron-responsive elements (IREs), which are ste m-loop structures found in the 5 UTR of ferritin mRNA, and in the 3 UTR of transferrin receptor mR NA. When the protein binds to IRE, it results in repression of translation of ferritin mRNA, and inhib ition of degradation of the otherwise rapidly degraded transferrin receptor mRNA. The encoded pro tein has been identified as a moonlighting protein based on its ability to perform mechanistically di stinct functions. Alternative splicing results in multiple transcript variants [provided by RefSeq, Jan 2014]

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