

Product datasheet for TG313675

CTCF Human shRNA Plasmid Kit (Locus ID 10664)

Product data:

Product Type: shRNA Plasmids

Product Name: CTCF Human shRNA Plasmid Kit (Locus ID 10664)

Locus ID: 10664

Synonyms: CFAP108; FAP108; MRD21

Vector: pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: CTCF - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 10664).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

RefSeq: <u>NM 001191022</u>, <u>NM 006565</u>, <u>NM 006565.1</u>, <u>NM 006565.2</u>, <u>NM 006565.3</u>, <u>NM 001191022.1</u>,

BC014267, BC014267.2, NM 001363916, NM 006565.4

UniProt ID: P49711

Summary: This gene is a member of the BORIS + CTCF gene family and encodes a transcriptional

regulator protein with 11 highly conserved zinc finger (ZF) domains. This nuclear protein is able to use different combinations of the ZF domains to bind different DNA target sequences

and proteins. Depending upon the context of the site, the protein can bind a histone acetyltransferase (HAT)-containing complex and function as a transcriptional activator or bind a histone deacetylase (HDAC)-containing complex and function as a transcriptional repressor. If the protein is bound to a transcriptional insulator element, it can block

communication between enhancers and upstream promoters, thereby regulating imprinted expression. Mutations in this gene have been associated with invasive breast cancers,

prostate cancers, and Wilms' tumors. Alternatively spliced transcript variants encoding

different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To

be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.

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Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).