

Product datasheet for TR314961

OriGene Technologies, Inc.

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Activin Receptor Type IIA (ACVR2A) Human shRNA Plasmid Kit (Locus ID 92)

Product data:

Product Type: shRNA Plasmids

Product Name: Activin Receptor Type IIA (ACVR2A) Human shRNA Plasmid Kit (Locus ID 92)

Locus ID: 92

Synonyms: ACTRII; ACVR2

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: ACVR2A - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

92). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: NM 001278579, NM 001278580, NM 001616, NM 001616.1, NM 001616.2, NM 001616.3,

NM 001616.4, NM 001278580.1, NM 001278579.1, BC069707, BC067416, BC067417,

BC067418, BM503220, NM 001616.5

UniProt ID: P27037

Summary: This gene encodes a receptor that mediates the functions of activins, which are members of

the transforming growth factor-beta (TGF-beta) superfamily involved in diverse biological processes. The encoded protein is a transmembrane serine-threonine kinase receptor which mediates signaling by forming heterodimeric complexes with various combinations of type I and type II receptors and ligands in a cell-specific manner. The encoded type II receptor is primarily involved in ligand-binding and includes an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic serine-threonine kinase domain. This gene may be associated with susceptibility to preeclampsia, a pregnancy-related disease which can result in maternal and fetal morbidity and mortality. Alternative splicing results in multiple

transcript variants of this gene. [provided by RefSeq, Jun 2013]

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).