

## Product datasheet for **TL320252**

### Activin Receptor Type IA (ACVR1) Human shRNA Plasmid Kit (Locus ID 90)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Activin Receptor Type IA (ACVR1) Human shRNA Plasmid Kit (Locus ID 90)
Locus ID:	90
Synonyms:	ACTRI; ACVR1A; ACVRLK2; ALK2; FOP; SKR1; TSRI
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	ACVR1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 90). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001105</a> , <a href="#">NM_001111067</a> , <a href="#">NM_001347663</a> , <a href="#">NM_001347664</a> , <a href="#">NM_001347665</a> , <a href="#">NM_001347666</a> , <a href="#">NM_001347667</a> , <a href="#">NM_001105.1</a> , <a href="#">NM_001105.2</a> , <a href="#">NM_001105.3</a> , <a href="#">NM_001105.4</a> , <a href="#">NM_001111067.1</a> , <a href="#">NM_001111067.2</a> , <a href="#">BC033867</a> , <a href="#">BC033867.1</a> , <a href="#">BC036748</a> , <a href="#">NM_001111067.4</a>
UniProt ID:	<a href="#">Q04771</a>
Summary:	Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. This gene encodes activin A type I receptor which signals a particular transcriptional response in concert with activin type II receptors. Mutations in this gene are associated with fibrodysplasia ossificans progressive. [provided by RefSeq, Jul 2008]



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- 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 [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- 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](mailto: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).