# Please - read the information and answer the 10 questions below

# Homo sapiens insulin-like growth factor 1 (somatomedin C) (IGF1), transcript variant 4, mRNA

NCBI Reference Sequence: NM\_000618.3

[FASTA](http://www.ncbi.nlm.nih.gov/nuccore/163659904?report=fasta) [Graphics](http://www.ncbi.nlm.nih.gov/nuccore/163659904?report=graph)

[Go to:](http://www.ncbi.nlm.nih.gov/nuccore/NM_000618" \l "goto163659904_0#goto163659904_0)

* [Comment](http://www.ncbi.nlm.nih.gov/nuccore/NM_000618#comment_163659904#comment_163659904)
* [Features](http://www.ncbi.nlm.nih.gov/nuccore/NM_000618#feature_163659904#feature_163659904)
* [Sequence](http://www.ncbi.nlm.nih.gov/nuccore/NM_000618#sequence_163659904#sequence_163659904)

LOCUS NM\_000618 7321 bp mRNA linear PRI 05-FEB-2012

DEFINITION Homo sapiens insulin-like growth factor 1 (somatomedin C)

(IGF1),transcript variant 4, mRNA.

ACCESSION NM\_000618

VERSION NM\_000618.3 GI:163659904

KEYWORDS .

SOURCE Homo sapiens (human)

ORGANISM [Homo sapiens](http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id=9606)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 7321)

AUTHORS Ahasic,A.M., Zhai,R., Su,L., Zhao,Y., Aronis,K.N.,

Thompson,B.T., Mantzoros,C.S. and Christiani,D.C.

TITLE IGF1 and IGFBP3 in acute respiratory distress syndrome

JOURNAL Eur. J. Endocrinol. 166 (1), 121-129 (2012)

PUBMED [22004906](http://www.ncbi.nlm.nih.gov/pubmed/22004906)

REMARK GeneRIF: Lower circulating levels of IGF1 and IGFBP3 were

independently associated with ARDS case status.

COMMENT REVIEWED [REFSEQ](http://www.ncbi.nlm.nih.gov/RefSeq/): This record has been curated by NCBI staff.

The reference sequence was derived from [AC010202.6](http://www.ncbi.nlm.nih.gov/nuccore/6598666) and

[AB209184.1](http://www.ncbi.nlm.nih.gov/nuccore/62087947). On Dec 20, 2007 this sequence version replaced

gi:[19923111](http://www.ncbi.nlm.nih.gov/nuccore/19923111).

Summary: The protein encoded by this gene is similar to

insulin in function and structure and is a member of a

family of proteins involved in mediating growth and

development. The encoded protein is processed from a

precursor, bound by a specific receptor, and secreted.

Defects in this gene are a cause of insulin-like growth

factor I deficiency. Several transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2009].

Transcript Variant: This variant (4) lacks an alternate

frame-shifting exon in the 3' coding region, compared to variant 1,resulting in a protein (isoform 4) with a novel C-terminus, compared to isoform 1. This isoform is also known as IA.

Sequence Note: This RefSeq was created from transcript and genomic sequence because transcript sequence consistent with the reference assembly was not available for all regions of the RefSeq transcript. The extent of this transcript is supported by transcript alignments.

PRIMARY REFSEQ\_SPAN PRIMARY\_IDENTIFIER PRIMARY\_SPAN COMP

1-4 AC010202.6 83980-83983

5-2450 AB209184.1 1-2446

2451-7321 AC010202.6 163843-168713

FEATURES Location/Qualifiers

source 1..7321

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:[9606](http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id=9606)"

/chromosome="12"

/map="12q23.2"

/gene="IGF1"

/gene\_synonym="IGF-I; IGF1A; IGFI"

/note="insulin-like growth factor 1 (somatomedin C)"

/db\_xref="GeneID:[3479](http://www.ncbi.nlm.nih.gov/sites/entrez?db=gene&cmd=Retrieve&dopt=full_report&list_uids=3479)"

/db\_xref="HGNC:[5464](http://www.genenames.org/data/hgnc_data.php?hgnc_id=5464)"

/db\_xref="HPRD:[00936](http://www.hprd.org/protein/00936)"

/db\_xref="MIM:[147440](http://www.ncbi.nlm.nih.gov/omim/147440)"

[exon](http://www.ncbi.nlm.nih.gov/nuccore/163659904?from=1&to=282) 1..282

/gene="IGF1"

/gene\_synonym="IGF-I; IGF1A; IGFI"

/inference="alignment:Splign"

/number=1

[exon](http://www.ncbi.nlm.nih.gov/nuccore/163659904?from=283&to=439) 283..439

/gene="IGF1"

/gene\_synonym="IGF-I; IGF1A; IGFI"

/inference="alignment:Splign"

/number=3

[exon](http://www.ncbi.nlm.nih.gov/nuccore/163659904?from=440&to=621) 440..621

/gene="IGF1"

/gene\_synonym="IGF-I; IGF1A; IGFI"

/inference="alignment:Splign"

/number=4

[exon](http://www.ncbi.nlm.nih.gov/nuccore/163659904?from=622&to=7321) 622..7321

/gene="IGF1"

/gene\_synonym="IGF-I; IGF1A; IGFI"

/inference="alignment:Splign"

/number=6

1. What is the name of the gene?
   1. Insulin
   2. IGFBP3
   3. Insulin-like growth factor 1 (IGF-1)
   4. Growth factor
2. What is the main function of this protein?
   1. Mediates growth and development
   2. Causes insulin deficiency
   3. Is associated with ARDS status
   4. Has many isoforms (1-4)
3. What is the source species?
   1. Monkey
   2. Mouse
   3. Human
   4. Rat
4. Is this genomic DNA or mRNA?
   1. It is Genomic RNA
   2. It is Genomic DNA
   3. It is mRNA
   4. It cannot be determined
5. How long is the sequence presented?
   1. 618 bp
   2. 7321 bp
   3. 9606 bp
   4. 3479 bp
6. How many exons does the gene have?
   1. It has 1 exon
   2. It has 2 exons
   3. It has 3 exons
   4. It has 4 exons
7. What is the location of this gene in the genome?
   1. chromosome="12"
   2. /mol\_type="mRNA"
   3. Eukaryota; Metazoa
   4. NM\_000618
8. Who identified this sequence?
   1. Eur. J. Endocrinol
   2. Homo sapiens
   3. Ahasic,A.M., Zhai,R. and others
   4. GeneRIF
9. Where was the sequence of this gene initially published (name of the journal)
   1. Homo sapiens
   2. NCBI Reference Sequence
   3. REVIEWED REFSEQ:
   4. Eur. J. Endocrinol
10. Genetic defects in this gene are associated with what disease?
    1. Insulin-like growth factor I deficiency
11. Hyperinsulinemia
12. Autosomal recessive disorder
13. Diabetes