

## Product datasheet for **SC123818**

### CBR4 (BC033650) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CBR4 (BC033650) Human Untagged Clone
Tag:	Tag Free
Symbol:	CBR4
Synonyms:	carbonic reductase 4; carbonyl reductase 4; FLJ14431; SDR45C1; short chain dehydrogenase/reductase family 45C, member 1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for BC033650 edited

```
CCACGCGTCCGGAGGTGTCGAGCGGCGTATTTTTTTTTGCGGTTGCCTTTTTTTTTTCT
TTTTTTTTTTTTGGAACCGCGTTGTTTAAAAGCCTGAGGGAACCTGGAGGGGGCTCCC
ACTCCCTACCTTCTTTCCCTCCGAGTTTGTGACTCCGAGATGGACAAAGTGTGTCTGTTT
TTGGAGGCTCCCGAGGCATTGGCAGAGCTGTGGCCAGTTAATGGCCCGGAAAGGTACC
GACTGGCGGTCAATTGCCAGAAACCTGGAAGGGGCCAAAGCCGCCCGGTGACCTCGGCG
GAGATCATTTGGCATTAGCTGTGATGTTGCTAAAGAACATGATGTTCAAATAACATTTG
AAGAGCTGGAGAAACATTTAGGTCGAGTAAATTTCTTGGTAAATGCAGCTGGTATTAACA
GGGATGGTCTTTTAGTAAGAACAATAACTGAAGATATGGTATCTCAGCTTCATACTAAC
TCTTGGTTCCATGCTGACCTGTAAAGCTGCCATGAGGACTATGATTCAACAACAGGGAG
GGTCTATTGTTAATGTAGGAAGCATTGTTGGCTTAAAAGGCAACTCTGGCCAGTCCGTTT
ACAGTGCCAGTAAAGGAGGATTAGTTGGATTTTACGTGCTCTTGCTAAAGAGGTAGCAA
GAAAGAAAATTAGAGTGAATGTAGTTGCACCAGGATTTGTACACACAGATATGACGAAAG
ACTTGAAAGAAGAACATTTAAAGAAAAATATTCCTCTTGGGAGGTTTGGAGAACTATTG
AGGTGGCAGATGCGGTTGTGTTCTTTTAGAATCACCGTATATTACAGGGCATGTTCTGG
TAGTGGATGGGGGATTACAACCTATTTTGTAAATTTGCAGATTATTCAGTTATAGGGGTGA
TTAGCATCAAGGGCACACTTTGGCTACTGATTAGACAATTATACCTACATGGGTAACATG
TGCTAATCAAACCTGCTGATGCTACAAATGTTAATTTCTGTCTTTATAAAAAATATGTCTC
AAAAGAACAATGTGTGACAAATGTGGTTTTTTTTTTTTTTGGTCAAGTTACATCAGTG
TTGTTTTGTTTAAAAAGCCTTTCATGAGATACAATTCACATACCATATAATCACACATTTA
AAATACACAATTCAGTGGTTTTAACATATTTAAATACATGTGCAATCATCCCCCAGACA
AATTGTGTTTTCTAAAGGATGTGTATCACTTACCTTTGGTTACCTCATAGACTGTAGCAA
TCTTAGTGTATAGACATTTTGAAGTCATATAAACAAGTATTGATTTATATATTTTGTCT
CAAAAGTGAAAAATTATATTGTCTAATTATGATGAATTATTTCTTGTATCAAGCTGAA
TTTTCTAAAAGTTAACCTTGTGGCTGTTGCCAAAATAAGAGTATTTAGAGGACTGAT
TAGTTGTCAATACTTTAGCAAGCCCACTAAAGATAACTATATTCCTTTTGCATGTGCTTG
```



[View online »](#)

```
GGTGATCAGTTTTTATACAGGTTGCAAAACATAGTATTTCATTAAGACATGAATTTAGAA
TTGATTTCTTTGAGTGGTATTTCTCTTGATTGAGCAGCTAGACAAAATAATCTGCAAATT
TAAATGTGGCGCATTTGACTCATTCTTGAGAAATTCCTATAAGTGAAGAGGATTAGCCCT
TAAGGTTTTAATACCTGGTACAGTAGTGAACCGCACAGATTTTCATGAACCTAGGATGTGT
TTTTTATTCATGAAAACTTAGAATAGTGAACCTTAAATATTTAAAAACGAGAAATACAA
CATTTAAAAAATAAGAGTATTTTGCATTAGTGATTATGATTCTTATCCCAAAATTTCTAG
AAAGTAATAAATCTGTATGAATAAGCATAAAAATAAATAAATATGCAATAACATTTAAA
TTAAATGTCTTTACAAGAAGCAGTGAAGGCACTGGTCTTAAAGTGAGAATATTTGCCTGGG
AGTAGAGATAAAGACACAACCGAATGTGAAATACCAGGTAATAATTATTTTGCATTAAA
CTCTTTTTATCGGGAATAGTATGATATTTTCAATGTCACCTCCATTCATGTTGATTTGGAG
CTGACAGTTATTTTGTGAAGCAGAGATTTAATTTTATATTGAAAGTCAGTGCAAATTA
TGAATAGGATATACTAATAAATACAAAGTAATAACAAAAGTCAAAGCAGTGTTCTAATA
AAAATTCTGGGTTCCCTAAAAATATTTTAAATTTATCTTTGAAATAGTTTTCTTAGATT
AATCTCAGGATATGAGAAAGTCAATTAAGTGTGAGTAAAGTTAGTATCATTAAACAAATT
GTCTATTAATGAAGACGTGGTAATATACAGAATTTATCAGGCATTACCAAGTCTAGGC
ACATATAGGAAATGCAGCACTCAGAATGGTTTCAATGTAGTAGTTGATGCTTGTAAAGTA
GGGAGCTTATTCAGACATAGTAGATAGTTTCTCTAATGTCTGCTCAATTGCTGGCCTTT
GGCTACCTGTACTTCCCATTTATGGCAGCCATTCACTTGGATTTTCTCTCTGGACA
CCTTATGCTCTGAAATCATGAGCGAGGCTGATTCAATGGTGATTTGGGTAGAAAGCAGT
ATGTTTTGCTGACATTAAGATGTAGGTTATAGATAGGTTTAGCCTTTAAGTGTATGTTTT
TATACTTTAAAAAAGAAATAAACCTTTTAAAGCTATCCACCTCCTCCCCAGCCTATC
TCAAACGGTGAATATATGGAGAGATCTTGAAGAGGTAAAAAACAACCTTCACTGCTCC
ACTCCAGGTGAATCCGCCCACTCCCACTGACCTAGTAGAATTTGTAATTTAATACTTACC
TTCTATTTCTGAAATCAGTTGTGAACCTGTTGCCTTATGTTGAGAGGTTTAAAGAACCTCAG
TGAATTCATTTTTTAAAACTGCTATTCTGAGAAGCATTGAATGAATTCTTAACAAGAAG
ACTCATCTGTAGCTGTTTGTGACTCCTATGAGCCATAAGGGTCTGTGCTTAGCATTAA
ACAAAATAAGGTTTATAGGTAAGCCAATGTATTAATTTTTTTTTGCATGGAGGGCTTTA
AAATTTGTGCTCTTTTTCATATTTTATTCATATTCATTTATGGTTTGTAACTGCTTTTT
AGGGAGATAATTATATGTATAAATTAGTTTTGGGGGAATAATTGTGCAAAGAGGATAA
TTTAATTTACGTCTTCTGTTATTCAGAATAAAGAGAGAAGACTACGCTGCATATTCAG
AGTTGTACCTAACATTGGTGAACATTTTTTTCTAAGATTTTCAAAGGAATATGTGTA
AATTGAGAAATCATAACCACTGTCTAACTTGGTAAACAACTGTCTTAAATAAAGTAT
TTAATGATTTTTAAAAAAAAAAAAAAAAAAAAA
```

**5' Read Nucleotide Sequence:**

```
>OriGene 5' read for BC033650 unedited
GTCACTACCCTGAGCCGATCCCGCTGTTTTGACCTCCATATAAGACCCGGGACCGATC
CAGCCTCCGACTCTAGCCTAGGCCGCGGACGGATAACAATTTACACAGGAAACAGCT
ATGACCATTAGGCTATTTAGGTGACACTATAGAACAAGTTGTACAAAAAGCAGGCTG
GTACCGGTCCGGAATCCCGGATATCGTCGACCCACGCTCCGGAGGTGTCGAGCGGC
TTATTTTTTTTTGCGGTTGCTTTTTTTTTTTTTTTTTTTTTTTTGGAACCGCGGTTGTT
TAAAAGCCTGAGGGAACCTGGAGGGGGCTCCCACTCCCTACCTTCTTCTCCGAGTTT
GTGACTCCGAGATGGACAAAGTGTGTGCTGTTTTTGGAGGCTCCCGAGGCATTGGCAGAG
CTGTGGCCAGTTAATGGCCCGGAAAGGCTACCGACTGGCGGTCAATGGCAGAACTGG
AAGGGGCCAAAGCCGCCCGGTGACCTCGGCGGAGATCATTTGGCATTAGCTGTGATG
TTGCTAAAGAACATGATGTTCAAATACATTTGAAGAGCTGGAGAACATTTAGTTCGAG
TAAATTTCTTGGTAAATGCAGCTGGTATTAACAGGGATGGTCTTTTAGTAAGAACAAAA
CTGAAGATATGGTATCTCAGCTTCACTAACCTCTTGAGTTCCATGCTGACCTGTAAAG
CTGNCCATGAGACTATGATTCAACACAGGAGGNTCTATTGNTAATGTANGAAGCATGNT
GGCTTAAAGGCACTCTGGCCAGTCCGTTACAGTGCCAGTAAAGGNAGATTAGTTGGATT
TTCACGTGCTCTTGCTAAAGAGTAGCAGGAAGAAATTGAGTGAATGTAGTTGCACCAGGA
TTTGTACACAGATATGACGGAAGACT
```

**Restriction Sites:**

Please inquire

<b>ACCN:</b>	BC033650
<b>Insert Size:</b>	4700 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">BC033650.1</a></u> , <u><a href="#">AAH33650.1</a></u>
<b>RefSeq Size:</b>	3452 bp
<b>Locus ID:</b>	84869
<b>Cytogenetics:</b>	4q32.3
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	The heterotetramer with HSD17B8 has NADH-dependent 3-ketoacyl-acyl carrier protein reductase activity, and thereby plays a role in mitochondrial fatty acid biosynthesis (PubMed:19571038, PubMed:25203508). Within the heterotetramer, HSD17B8 binds NADH; CBR4 binds NADPD (PubMed:25203508). The homotetramer has NADPH-dependent quinone reductase activity (PubMed:19000905). Both homotetramer and the heterotetramer have broad substrate specificity and can reduce 9,10-phenanthrenequinone, 1,4-benzoquinone and various other o-quinones and p-quinones (in vitro) (PubMed:19000905, PubMed:19571038, PubMed:25203508).[UniProtKB/Swiss-Prot Function]