

## Product datasheet for SC122223

### Tyrosinase (TYR) (BC027179) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tyrosinase (TYR) (BC027179) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tyrosinase
Synonyms:	OCA1A; OCAIA; SHEP3; tyrosinase; tyrosinase (oculocutaneous albinism IA)
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 BC027179 edited  
AAGAGAAATCTGTGACTCCAATTAGCCAGTTCTGCAGACCTTGTGAGGACTAGAGGAAG  
AATGCTCCTGGCTGTTTTGTACTGCCTGCTGTGGAGTTCCAGACCTCCGCTGGCCATTT  
CCCTAGAGCCTGTGTCTCCTCTAAGAACCTGATGGAGAAGGAATGCTGTCCACCTGGAG  
CGGGGACAGGAGTCCCTGTGGCCAGCTTTCAGGCAGAGGTTCTGTGAGAATATCCTTCT  
GTCCAATGCACCCTTGGCCCTCAATTTCCCTTACAGGGGTGGATGACCGGGAGTCGTG  
GCCTTCCGCTTTTTATAATAGGACCTGCCAGTGCCTGTGGCAACTTCATGGGATTCAACTG  
TGGAACTGCAAGTTTGGCTTTTGGGGACCAAAGTGCACAGAGAGACGACTCTTGGTGAG  
AAGAAACATCTTCGATTTGAGTGCCCCAGAGAAGGACAAATTTTTGCTACCTCACTTT  
AGCAAAGCATACCATCAGCTCAGACTATGTCATCCCATAGGGACCTATGGCCAAATGAA  
AAATGGATCAACACCCATGTTTAAAGACATCAATATTTATGACCTCTTTGTCTGGATGCA  
TTATTATGTGTCATGGATGCACCTGCTTGGGGATCTGAAATCTGGAGAGACATTGATTT  
TGCCCATGAAGCACCAGCTTTTCTGCCTTGGCATAGACTCTTCTTGTGGGTGGGAACA  
AGAAATCCAGAAGCTGACAGGAGATGAAAACCTTCACTATTCCATATTGGGACTGGCGGGA  
TGCAGAAAAGTGTGACATTTGCACAGATGAGTACATGGGAGGTCAGCACCCACAAATCC  
TAACCTACTCAGCCAGCATCATTCTTCTCCTTGGCAGATTGTCTGTAGCCGATTGGA  
GGAGTACAACAGCCATCAGTCTTTATGCAATGGAACGCCCCGAGGGACCTTTACGGCGTAA  
TCCTGGAAACCATGACAAATCCAGAACCCCAAGGCTCCCTCTTCAGCTGATGTAGAATT  
TTGCCTGAGTTTGACCAATATGAATCTGGTTCCATGGATAAAGCTGCCAATTTCACTT  
TAGAAATACACTGGAAGAGATGGGATTTCTCCATGTTGGCTGGGCTGGTCTCAAACCTCT  
GACCTCAAGAGATCCACCACCTTGGCCTCCAAAATGCTGGGATTACAGGCTTGAGCCAC  
CACACCTGGCCTAACTTCAAGGTATCAAAGACAAATTAACAATGTCTGATGCATACATAG  
GACTGCTTTGTAATCTTCTACACTAATGATTTGTACTATTTTGGTTTCAGAATCCATTTA  
TAACTCTTACAATATATGAAAAATTTCTGCCAGCTTTTATTTATGTGGTTATATTTATG  
ACTACTTCTCATTGTAAAACTGAAATAAAAAGATCTTGCATATTTGTATTAATTTAAAA  
AAAAAAAAAAAA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for BC027179 unedited CTTGATTTGTAATACGACTCTACTATAGGGCGGCCGCGATTCCCAGGATATCGTCGACCC ACGCGTCCGAAGAGAAATCTGTGACTCCAATTAGCCAGTTCTGCAGACCTTGTGAGGAC TAGAGGAAGAATGCTCCTGGCTGTTTTGTACTGCCTGCTGTGGAGTTCCAGACCTCCGC TGGCCATTTCCCTAGAGCCTGTGTCTCCTAAGAACCTGATGGAGAAGGAATGCTGTCC ACCGTGGAGCGGGACAGGAGTCCCTGTGGCCAGCTTTCAGGCAGAGGTTCTGTGCAGAA TATCCTTCTGTCCAATGCACCACTTGGGCCTCAATTTCCCTTCACAGGGGTGGATGACCG GGAGTCGTGGCCTCCGTCCTTTATAATAGGACCTGCCAGTGCTCTGGCAACTTCATGGG ATTCAACTGTGGAACTGCAAGTTTGGCTTTTGGGGACAACTGCACAGAGAGACGACT CTTGGTGAGAAGAAACATCTTCGATTTGAGTGCCCCAGAGAAGGACAAATTTTTTGCCTA CCTCACTTTAGCAAAGCATACCATCAGCTCAGACTATGTCATCCCCATAGGGACCTATGG CCAAATGAAAAATGGATCAACACCCATGTTTAAACGACATCAATATTTATGACCTCTTGT CTGGATGCATTATTATGTGTCAATGGATGCACTGCTTGNGGGATCTGAAATCTGGAGAGA CATTGATTTTGCCATGAAGCACCAGCTTTTTCTGCCCTTGCATAGACTCTTCTGTTGN CGTGGGGACAAGAAATTCAGAAGCTGACAGGAGATGAAAACCTTCACTATTCATATTGGGA CTGGCGGGATGCAGAAAAGTGTGACATTTGCACAGATGAGTACATGGGAGGTGAGCACCC CACAATCCTAACTACTCAGCCAGCATCATTCTTCTCTCTGGCAGATGT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	BC027179
<b>Insert Size:</b>	1500 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>	<a href="#">BC027179.1</a> , <a href="#">AAH27179.1</a>
<b>RefSeq Size:</b>	1452 bp
<b>RefSeq ORF:</b>	1131 bp
<b>Locus ID:</b>	7299
<b>Cytogenetics:</b>	11q14.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Melanogenesis, Metabolic pathways, Riboflavin metabolism, Tyrosine metabolism

**Gene Summary:**

The enzyme encoded by this gene catalyzes the first 2 steps, and at least 1 subsequent step, in the conversion of tyrosine to melanin. The enzyme has both tyrosine hydroxylase and dopa oxidase catalytic activities, and requires copper for function. Mutations in this gene result in oculocutaneous albinism, and nonpathologic polymorphisms result in skin pigmentation variation. The human genome contains a pseudogene similar to the 3' half of this gene. [provided by RefSeq, Oct 2008]