

Serine/threonine-protein kinase-like protein ACR4 (ACR4), Recombinant Protein

Cat *RP02560*

Size 0.5 mg (*E-Coli*)/ 0.05 mg (*Baculovirus*)/ 0.5 mg (*Yeast*)/ 0.05 mg (*Mammalian-Cell*)/ 1 mg (*E-Coli*)/ 0.1 mg (*Baculovirus*)/ 1 mg (*Yeast*)/ 0.1 mg (*Mammalian-Cell*)

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* Serine/threonine-protein kinase-like protein ACR4 (ACR4), partial

Product Gene Name

ACR4 recombinant protein

Product Synonym Gene Name

ACR4

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

L GSMSSIAISY GEGGSVFCGL KSDGSHLVVC YGSNSAILYG TPGHLQFIGL TGGDGFMCGL LMLSHQPYCW
GNSAFIQMGV PQPMTKGA EY LEVSAGDYHL CGLRKP VGR RKNSNISSS LVDCWGYNMT RNFVFDKQLH
SLSAGSEFNC ALSSKDKSVF CWGDENSSQV ISLIPKEKKF QKIAAGGYHV CGILDGLESR VLCWGKSLEF
EEEVTGTSTE EKILDLPPKE PLLAVVGGKF YACGIKRYDH SAVCWGFFVN RSTPAPTGIG FYDLAAGNYF
TCGVLGTSM SPVCWGLGFP ASIPLAVSPG LCIDTPCPPG THELSNQENS PCKFTGSHIC LPCSTSCPPG
MYQKSVCTER SDQVCVYNCS SCSSHDCSSN CSSSATSGGK EKGKFWSLQL PIAT

Sequence Positions

30-434

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or *Yeast* or *Baculovirus* or *Mammalian Cell*

Molecular Weight

98,181 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

Protein Family

Serine/threonine-protein kinase-like protein

NCBI Accession

NP_191501.1

NCBI GI

15231681

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GenBank Nucleotide

NM_115804.4

NCBI GeneID

825111

NCBI Official Full Name

crinkly4

NCBI Official Symbol

CR4

NCBI Official Synonym Symbols

ACR4; crinkly4

NCBI Protein Information

crinkly4

NCBI Summary

Encodes a membrane localized protein with similarity to receptor kinases which is involved in epidermal cell differentiation. Flowers of mutants have disorganized ovule integument growth and abnormal sepal margins. In the roots, mutants initiate more lateral roots but fewer laterals actually emerge due to defects in lateral root formation. Mutants also display disorganized columella. The root phenotypes can be traced to abnormalities in asymmetric divisions in the pericycle and root apex. Conflicting data regarding the role of the kinase domain- which may or may not be required for function. Complementation studies indicate that the C-terminal domain is also not required for signaling function. May be regulated by protein turnover which is mediated by endocytic processes.

UniProt Gene Name

ACR4

UniProt Synonym Gene Names

AtCR4

UniProt Protein Name

Serine/threonine-protein kinase-like protein ACR4

UniProt Synonym Protein Names

Protein CRINKLY 4; AtCR4

UniProt Primary Accession

Q9LX29

UniProt Related Accession

Q9LX29

UniProt Comments

Controls formative cell division in meristems, including root tips and lateral root initiation zones of the pericycle, in

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(Yeast)/ 0.1 mg (Mammalian-Cell)

response to CLE40 signal. Acts with CLE40p peptide as a ligand-receptor pair in a signal transduction pathway, coordinating movement of the root tip and organization of cell divisions in the root meristem. Required during embryogenesis and development, probably for the differentiation of protoderm and epidermal cells. Involved in the regulation of cellular organization during the development of sepal margins and ovule integument outgrowth. Can phosphorylate ALE2.

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