

LRR receptor-like serine/threonine-protein kinase ERL1 (ERL1), Recombinant Protein

Cat *RP01826*

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* LRR receptor-like serine/threonine-protein kinase ERL1 (ERL1) , partial

Product Gene Name

ERL1 recombinant protein

Purity

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

Format

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

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

106,486 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

LRR receptor-like serine/threonine-protein kinase

NCBI Accession

NP_201029.1

NCBI GI

15241760

NCBI GenBank Nucleotide

NM_125617.3

NCBI GeneID

836344

NCBI Official Full Name

ERECTA-like 1

NCBI Official Symbol

ERL1

NCBI Official Synonym Symbols

ERECTA-like 1; MMI9.14; MMI9_14

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI Protein Information

ERECTA-like 1

NCBI Summary

Encodes a receptor-like kinase that, together with ER and ERL2 governs the initial decision of protodermal cells to either divide proliferatively to produce pavement cells or divide asymmetrically to generate stomatal complexes. It is important for maintaining stomatal stem cell activity and preventing terminal differentiation of the meristemoid into the guard mother cell. Along with *erl2* functionally compensates for loss of *erecta* during integument development. Its transcript levels change after inducing MUTE expression in a mute background.

UniProt Gene Name

ERL1

UniProt Protein Name

LRR receptor-like serine/threonine-protein kinase ERL1

UniProt Synonym Protein Names

Protein ERECTA-like kinase 1

UniProt Primary Accession

C0LGW6

UniProt Secondary Accession

Q6XAT3; Q8GXT4; Q9LVB3

UniProt Related Accession

C0LGW6

UniProt Comments

Receptor kinase that regulates inflorescence architecture and organ shape as well as stomatal patterning, including density and clustering, together with ER and ERL2. Redundantly involved with ER in procambial development regulation. Forms a functional ligand-receptor pair with EPF1 (AC Q8S8I4) (PubMed:22241782). Forms a constitutive complex with TMM involved in the recognition of the stomatal regulatory peptides EPF1, EPF2 and EPFL9/STOMAGEN (PubMed:28536146).

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