

Protein View: AAV39517.1

0.19 dimeric alpha-amylase inhibitor, partial [Triticum aestivum]

Database: NCBIprot
Score: 153
Expect: 2.9e-09
Monoisotopic mass (M_r): 13815
Calculated pI: 5.73
Taxonomy: [Triticum aestivum](#)

Sequence similarity is available as [an NCBI BLAST search of AAV39517.1 against nr](#).

Search parameters

Enzyme: Trypsin: cuts C-term side of KR unless next residue is P.
Fixed modifications: [Carbamidomethyl \(C\)](#)
Variable modifications: [Oxidation \(M\)](#)
Mass values searched: 12
Mass values matched: 8

Protein sequence coverage: 92%

Matched peptides shown in ***bold red***.

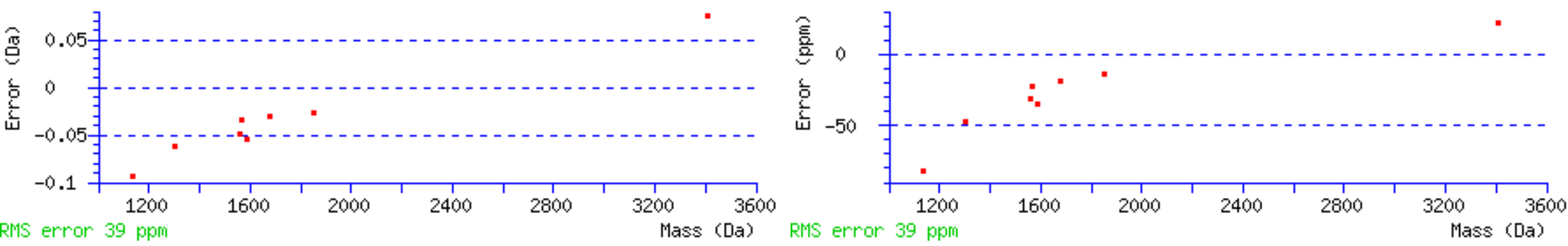
1 **SGPWMCPGY AFKVPALPGC RPVLKLCNG SQVPEAVLRE CCQQLADISE**
51 **WCRCGALYSM LDSMYKEHGV QEGQAGTGAF PSCRREVVKL TAASITAVCK**
101 **LPIVIDASGD GAYVCK**DVAA YPDA

Unformatted sequence string: [124 residues](#) (for pasting into other applications).

Sort by ☒ residue number ☐ increasing mass ☐ decreasing mass
Show ☒ matched peptides only ☐ predicted peptides also

Start – End	Observed	Mr (expt)	Mr (calc)	Delta M	Peptide
1 – 13	1563.6278	1562.6205	1562.6686	-0.0482 0	- .SGPWMCPGYAFK.V
14 – 25	1306.7046	1305.6974	1305.7591	-0.0617 0	K.VPALPGCRPVLK.L
26 – 39	1570.7657	1569.7584	1569.7933	-0.0349 0	K.LQCNGSQVPEAVLR.E
40 – 53	1854.7305	1853.7233	1853.7495	-0.0262 0	R.ECCQQLADISEWCR.C
54 – 84	3407.5660	3406.5587	3406.4839	0.0748 1	R.CGALYSMLDSMYKEHGVQEGQAGTGAFPSCR.R
86 – 100	1589.8383	1588.8310	1588.8858	-0.0548 1	R.EVVKLTAASITAVCK.L
90 – 100	1134.5255	1133.5182	1133.6114	-0.0933 0	K.LTAASITAVCK.L
101 – 116	1677.8203	1676.8130	1676.8444	-0.0313 0	K.LPIVIDASGDGAYVCK.D

No match to: 870.4032, 1794.7845, 2211.1040, 2827.3047



LOCUS	AAV39517	124 aa	linear	PLN 26-JUL-2016
DEFINITION	0.19 dimeric alpha-amylase inhibitor, partial [Triticum aestivum].			
ACCESSION	AAV39517			
VERSION	AAV39517.1			
DBSOURCE	accession AY729675.1			
KEYWORDS	.			
SOURCE	Triticum aestivum (bread wheat)			
ORGANISM	Triticum aestivum			
	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; BOP clade; Pooideae; Triticodae; Triticeae; Triticinae; Triticum.			
REFERENCE	1 (residues 1 to 124)			
AUTHORS	Wang,J.R., Wei,Y.M., Yan,Z.H. and Zheng,Y.L.			
TITLE	Detection of single nucleotide polymorphisms in 24 kDa dimeric alpha-amylase inhibitors from cultivated wheat and its diploid putative progenitors			
JOURNAL	Biochim. Biophys. Acta 1723 (1-3), 309-320 (2005)			
PUBMED	15837429			
REFERENCE	2 (residues 1 to 124)			
AUTHORS	Wang,J., Yan,Z., Wei,Y. and Zheng,Y.			
TITLE	Direct Submission			
JOURNAL	Submitted (14-AUG-2004) Triticeae Research Institute, Sichuan Agricultural University, Dujiangyan, Si Chuan 611830, China			
COMMENT	Method: conceptual translation.			
FEATURES	Location/Qualifiers			
source	1..124			
	/organism="Triticum aestivum"			
	/cultivar="Chuan Nong 16"			
	/specimen voucher="CDS1367"			
	/db_xref="taxon:4565"			
Protein	<1..124			
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Region	3..103			
	/region name="AAI_SS"			
	/note="AAI_SS: Alpha-Amylase Inhibitors (AAIs) and Seed Storage (SS) Protein subfamily; composed of cereal-type AAIs and SS proteins. They are mainly present in the seeds of a variety of plants. AAIs play an important role in the natural defenses of plants...; cd00261"			
	/db_xref="CDD:238163"			
Site	order(4,49..51,58)			
	/site_type="other"			
	/note="alpha-amylase binding site [polypeptide binding]"			
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Site	order(38,90,94,100)			
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	/note="dimer interface [polypeptide binding]"			
	/db_xref="CDD:238163"			
CDS	1..124			
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