abcam

ab120301

beta-Amyloid Peptide (1-42) (human)

Beta Amyloid (1-42) Peptide (Human)(CAS:107761-42-2)(ab120301) is the predominant amyloid β-peptide found in plaques associated with Alzheimer's disease (AD). Molecular weight (MW) 4514.

- Available in different sizes to fit your experimental needs
- Proven performance: cited in over 50 publications

Key facts

CAS number	107761-42-2
Purity	> 95%
Form	Solid
Molecular weight	4514 Da
Molecular formula	$C_{203}H_{311}N_{55}O_{60}S$
PubChem identifier	57339251
Nature	Synthetic
Solubility	Solubility is batch-dependent. Please refer to the Protocol Booklet and the batch-specific CoA for more information.
Biochemical name	Asp-Ala-Glu-Phe-Arg-His-Asp-Ser-Gly-Tyr-Glu-Val-His-His-Gln-Lys-Leu-Val-Phe-Phe-Ala-Glu-Asp-Val-Gly-Ser-Asn-Lys-Gly-Ala-Ile-Ile-Gly-Leu-Met-Val-Gly-Gly-Val-Val-Ile-Ala
Canonical SMILES	CCC(C)C(C(=O)NC(C(C)CC)C(=O)NCC(=O)NC(CC(C)C)C(=O)NC(CCSC)C(=O)NC(C(C)C)C(=O)NCC(=O)NCC(=O)NC(C(C)C)C(=O)NC(C(C)C)C(=O)NC(C(C)CC)C(=O)NC(C)C(=O)O)NC(=O)C(C)NC(=O)CNC(=O)C(CCCCN)NC(=O)C(CC(=O)N)NC(=O)C(CO)NC(=O)CNC(=O)C(C(C)C)NC(=O)C(CC(=O)O)NC(=O)C(CCC(=O
Isomeric SMILES	CC[C@H](C)[C@@H](C(=O)N[C@@H]([C@@H](C)CC)C(=O)NCC(=O)N[C@@H](CC(C)C)C(=O)N[C@@H](CCSC)C(=O)N[C@@H](C(C)C)C(=O)NCC(=O)NCC(=O)N[C@@H](C(C)C)C(=O)N[C@@H](C(C)C)C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](C)C(=O)O)NC(=O)[C@H](C)NC(=O)CNC(=O)[C@H](CCCCN)NC(=O)[C@H](CC(=O)N)NC(=O)[C@H](CO)NC(=O)CNC(=O)[C@H](C(C)C)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](C)NC(=O)[C@H](CC1=CC=CC=C1)NC(=O)[C@H](CC2=CC=CC=C2)NC(=O)[C@H](C(C)C)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCCCN)NC(=O)[C@H](CCC(=O)N)NC(=O)[C@H]

(CC3=CNC=N3)NC(=O)[C@H](CC4=CNC=N4)NC(=O)[C@H](C(C)C)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](CC5=CC=C(C=C5)O)NC(=O)CNC(=O)[C@H](CO)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CC6=CNC=N6)NC(=O)[C@H](CCCNC(=N)N)NC(=O)[C@H](CC7=CC=CC=C7)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](C)NC(=O)[C@H](CC(=O)O)N

InChI

InChI=1S/C203H311N55O60S/c1-28-106(20)164(195(310)220-91-149(267)228-130(71-98(4)5)181(296)238-129(66-70-319-27)179(294)251-158(100(8)9)193(308)218-87-146(264)215-88-151(269)250-160(102(12)13)198(313)255-163(105(18)19)199(314)258-165(107(21)29-2)200(315)227-112(26)202(317)318)257-201(316)166(108(22)30-3)256-169(284)109(23)224-147(265)89-216-171(286)122(51-40-42-67-204)233-188(303)139(81-145(208)263)244-192(307)143(94-260)230-150(268)92-219-194(309)159(101(10)11)252-191(306)141(83-157(280)281)245-177(292)127(60-64-153(272)273)232-168(283)111(25)226-180(295)133(73-113-45-34-31-35-46-113)241-184(299)135(75-115-49-38-33-39-50-115)247-196(311)162(104(16)17)254-190(305)131(72-99(6)7)239-173(288)123(52-41-43-68-205)234-175(290)125(58-62-144(207)262)236-185(300)136(77-117-84-211-95-221-117)243-187(302)138(79-119-86-213-97-223-119)248-197(312)161(103(14)15)253-178(293)128(61-65-154(274)275)237-182(297)132(76-116-54-56-120(261)57-55-116)229-148(266)90-217-172(287)142(93-259)249-189(304)140(82-156(278)279)246-186(301)137(78-118-85-212-96-222-118)242-174(289)124(53-44-69-214-203(209)210)235-183(298)134(74-114-47-36-32-37-48-114)240-176(291)126(59-63-152(270)271)231-167(282)110(24)225-170(285)121(206)80-155(276)277/h31-39,45-50,54-57,84-86,95-112,121-143,158-166,259-261H,28-30,40-44,51-53,58-83,87-94,204-206H2,1-27H3,(H2,207,262)(H2,208,263)(H,211,221)(H,212,222)(H,213,223)(H,215,264)(H,216,286)(H,217,287)(H,218,308)(H,219,309)(H,220,310)(H,224,265)(H,225,285)(H,226,295)(H,227,315)(H,228,267)(H,229,266)(H,230,268)(H,231,282)(H,232,283)(H,233,303)(H,234,290)(H,235,298)(H,236,300)(H,237,297)(H,238,296)(H,239,288)(H,240,291)(H,241,299)(H,242,289)(H,243,302)(H,244,307)(H,245,292)(H,246,301)(H,247,311)(H,248,312)(H,249,304)(H,250,269)(H,251,294)(H,252,306)(H,253,293)(H,254,305)(H,255,313)(H,256,284)(H,257,316)(H,258,314)(H,270,271)(H,272,273)(H,274,275)(H,276,277)(H,278,279)(H,280,281)(H,317,318)(H4,209,210,214)/t106-,107-,108-,109-,110-,111-,112-,121-,122-,123-,124-,125-,126-,127-,128-,129-,130-,131-,132-,133-,134-,135-,136-,137-,138-,139-,140-,141-,142-,143-,158-,159-,160-,161-,162-,163-,164-,165-,166-/m0/s1

InChIKey

DZHSAHHDTRWUTF-SIQRNXPUSA-N

IUPAC name

(4S)-5-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[2-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-5-amino-1-[[(2S)-6-amino-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[2-[[(2S)-1-[[(2S)-4-amino-1-[[(2S)-6-amino-1-[[2-[[(2S)-1-[[(2S,3S)-1-[[(2S,3S)-1-[[2-[[(2S)-1-[[(2S)-1-[[(2S)-1-[[2-[[2-[[(2S)-1-[[(2S)-1-[[(2S,3S)-1-[[(1S)-1-carboxyethyl]amino]-3-methyl-1-oxopentan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-2-oxoethyl]amino]-2-oxoethyl]amino]-3-methyl-1-oxobutan-2-yl]amino]-4-methylsulfanyl-1-oxobutan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-2-oxoethyl]amino]-3-methyl-1-oxopentan-2-yl]amino]-3-methyl-1-oxopentan-2-yl]amino]-1-oxopropan-2-yl]amino]-2-oxoethyl]amino]-1-oxohexan-2-yl]amino]-1,4-dioxobutan-2-yl]amino]-3-hydroxy-1-oxopropan-2-yl]amino]-2-oxoethyl]amino]-3-methyl-1-oxobutan-2-yl]amino]-3-carboxy-1-oxopropan-2-yl]amino]-4-carboxy-1-oxobutan-2-yl]amino]-1-oxopropan-2-yl]amino]-1-oxo-3-phenylpropan-2-yl]amino]-1-oxo-3-phenylpropan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-1-oxohexan-2-yl]amino]-1,5-dioxopentan-2-yl]amino]-3-(1H-imidazol-4-yl)-1-oxopropan-2-yl]amino]-3-(1H-imidazol-4-yl)-1-oxopropan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-4-carboxy-1-oxobutan-2-yl]amino]-3-(4-hydroxyphenyl)-1-

	oxopropan-2-yl]amino]-2-oxoethyl]amino]-3-hydroxy-1-oxopropan-2-yl]amino]-3-carboxy-1-oxopropan-2-yl]amino]-3-(1H-imidazol-4-yl)-1-oxopropan-2-yl]amino]-5-carbamimidamido-1-oxopentan-2-yl]amino]-1-oxo-3-phenylpropan-2-yl]amino]-4-[[(2S)-2-[[(2S)-2-amino-3-carboxypropanoyl]amino]propanoyl]amino]-5-oxopentanoic acid
Reconstitution	For reconstitution, amyloid ß (1-42) human peptide should be dissolved according to this method: Add a small amount of 1% NH4OH directly to the lyophilized solid (50-100 µl should be sufficient for 1mg of peptide). Dilute to a concentration of 1mg/ml or less with your buffer. Vortex gently to mix (less than 1 minute). The peptide cannot be stored long term in 1% NH4OH, therefore it is important to immediately dilute the NH4OH/peptide solution with PBS or other buffer to a concentration of 1 mg/ml.

Target data

See full target information beta-Amyloid Peptide (1-42) (human)

Storage

Shipped at conditions	Ambient - Can Ship with Ice
Appropriate short-term storage conditions	-20°C
Appropriate long-term storage conditions	-20°C
Storage information	Store under desiccating conditions, The product can be stored for up to 12 months

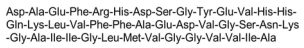
Product promise

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Chemical Structure - beta-Amyloid Peptide (1-42) (human) (ab120301)

2D chemical structure image of ab120301, beta-Amyloid Peptide (1-42) (human)