ANGPT2/Angiopoietin-2, Dog (HEK293, His)

Cat. No.:	HY-P700396
Synonyms:	angiopoietin 2; angiopoietin-2; Ang2; ANG-2; Tie2-ligand; angiopoietin-2B; angiopoietin-2a; ANG2; AGPT2;
Species:	Dog
Source:	HEK293
Accession:	A0A8J8 (Y19-F495)
Gene ID:	607616
Molecular Weight:	57.2 kDa

PROPERTIES

AA Sequence	Y N N F R R S M D S I G R R Q Y Q V Q H G S C S Y T F L L P E T D N C R S P G S Y V P N A V Q R D A P L D Y D D S V Q R L Q V L E N I M E N N T Q W L I K L E N Y I Q D N M K K E M V E M Q Q N A V Q N Q T A V M I E I G T N L L N Q T A E Q T R K L T D V E A Q V L N Q T T R L E L Q L L E H S L S T N K L E K Q I L D Q T S E I N K L Q D K N S F L E K K V L D M E D K H I V Q L R S I K E E K D Q L Q V L V S K Q N S I I E E L E K Q L V T A T V N N S V L Q K Q Q H D L M E T V H S L L T M I S P S K S P K D T F V A K E E Q I I Y R D C A E V F K S G L T T N G I Y T L T F P N S T E E I K A Y C D M E T S G G G W T V I Q R R E D G S V D F Q R T W K E Y K V G F G N P S G E H W L G N E F V F Q V T N Q Q P Y V L K I H L K D W E G N E A Y S L Y E H F Y L S G E E L N Y R I H L K G L T G T A G K I S S I S Q P G N D F S T K D A D N D K C I C K C S Q M L T G G W W F D A C G P S N L N G M Y Y P Q R Q N T N K F N G I K W Y Y W K G S G Y S L K G T T M M I R P A D F
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The Dog Angiopoietin-2 protein (ANGPT2) engages in a multifaceted role as it binds to TEK/TIE2, competing for the ANGPT1

binding site and effectively modulating ANGPT1 signaling. Notably, ANGPT2 has the capacity to induce tyrosine phosphorylation of TEK/TIE2 even in the absence of ANGPT1. Its function extends to angiogenesis regulation, where in the absence of angiogenic inducers like VEGF, ANGPT2-mediated loosening of cell-matrix contacts may lead to endothelial cell apoptosis, contributing to vascular regression. Conversely, in collaboration with VEGF, ANGPT2 can facilitate endothelial cell migration and proliferation, acting as a permissive angiogenic signal. Furthermore, ANGPT2 is implicated in the regulation of lymphangiogenesis. The protein's interactions with TEK/TIE2, competing for the same binding site as ANGPT1, and with ITGA5 underscore its comprehensive role in angiogenesis and vascular regulation within the context of dog biology.

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