

Wilms tumor protein/WT1 Protein, Human (His-SUMO)

Cat. No.:	HY-P72261
Synonyms:	WIT 2; WT 1; GUD; WT33
Species:	Human
Source:	E. coli
Accession:	P19544 (M1-L449)
Gene ID:	7490
Molecular Weight:	Approximately 65.2kDa

PROPERTIES

AA Sequence

M G S D V R D L N A	L L P A V P S L G G	G G G C A L P V S G	A A Q W A P V L D F
A P P G A S A Y G S	L G G P A P P P A P	P P P P P P P P H S	F I K Q E P S W G G
A E P H E E Q C L S	A F T V H F S G Q F	T G T A G A C R Y G	P F G P P P P S Q A
S S G Q A R M F P N	A P Y L P S C L E S	Q P A I R N Q G Y S	T V T F D G T P S Y
G H T P S H H A A Q	F P N H S F K H E D	P M G Q Q G S L G E	Q Q Y S V P P P V Y
G C H T P T D S C T	G S Q A L L L R T P	Y S S D N L Y Q M T	S Q L E C M T W N Q
M N L G A T L K G V	A A G S S S S V K W	T E G Q S N H S T G	Y E S D N H T T P I
L C G A Q Y R I H T	H G V F R G I Q D V	R R V P G V A P T L	V R S A S E T S E K
R P F M C A Y P G C	N K R Y F K L S H L	Q M H S R K H T G E	K P Y Q C D F K D C
E R R F S R S D Q L	K R H Q R R H T G V	K P F Q C K T C Q R	K F S R S D H L K T
H T R T H T G K T S	E K P F S C R W P S	C Q K K F A R S D E	L V R H H N M H Q R
N M T K L Q L A L			

Appearance Lyophilized powder.

Formulation Lyophilized from 0.2 µm filtered solution in PBS, 6% Trehalose, pH 7.4.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

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 Wilms tumor protein (WT1), a pivotal transcription factor, plays a crucial role in cellular development and survival by

recognizing and binding to the DNA sequence 5'-GCG(T/G)GGGCG-3'. It regulates the expression of various target genes, including erythropoietin (EPO), and is indispensable for the development of the urogenital system. WT1 exhibits a dual role in tumorigenesis, acting as both a tumor suppressor and an oncogene. Its function may be isoform-specific, with isoforms lacking the KTS motif acting as transcription factors, while those containing the KTS motif potentially binding mRNA and participating in mRNA metabolism or splicing. Notably, isoform 1 has a lower affinity for DNA and can bind RNA. WT1 forms homodimers and interacts with WTIP, actively translating polysomes, nuclear ribonucleoprotein (mRNP) particles, HNRNPU, U2AF2, CITED2, ZNF224, WTAP, SRY, AMER1, RBM4, among others, highlighting its diverse interactions and regulatory roles in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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