

## WDR77 Protein, Human (His-SUMO)

<b>Cat. No.:</b>	HY-P71622
<b>Synonyms:</b>	2610312E17Rik; Androgen receptor cofactor p44; C79984; HKMT1069; MEP 50; MEP-50; MEP50; Methylosome protein 50; WDR77
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	Q9BQA1 (1M-312L)
<b>Gene ID:</b>	79084
<b>Molecular Weight:</b>	Approximately 49.6 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> MRKETPPPLV   PPAAREWNL P   PNAPACMERQ   LEAARYRSDG ALLLGASSLS   GRCWAGSLWL   FKDPCAAPNE   GFC SAGVQTE AGVADLTWVG   ERGILVASDS   GAVELWELDE   NETLIVSKFC KYEHDDIVST   VSVLSSGTQA   VSGSKDICK   VWDLAQQVVL SSYRAHAAQV   TCVAAASPHKD   SVFLSCSEDN   RILLWDTRCP KPASQIGCSA   PGYLPTSLAW   HPQQSEVFVF   GDENGTVSLV DTKSTSCVLS   SAVHSQCVTG   LVFSPHSVPF   LASLSEDCSL AVLDSLSSEL   FRSQAHRDFV   RDATWSPLNH   SL           </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	WDR77 functions as a non-catalytic component within the methylosome complex, alongside PRMT5 and CLNS1A, orchestrating the modification of specific arginines to dimethylarginines in spliceosomal Sm proteins and histones. This modification directs Sm proteins to the survival of motor neurons (SMN) complex, facilitating their assembly into small nuclear ribonucleoprotein core particles. Beyond its role in RNA processing, WDR77 may play a part in transcription regulation. The methylosome complex extends its methylating activity to Piwi proteins (PIWIL1, PIWIL2, and PIWIL4),
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essential for their interaction with Tudor domain-containing proteins and subsequent localization to the meiotic nuage. WDR77 engages in a complex interplay with other components such as PRMT1, ERH, and CLNS1A, with specific interactions observed with PRMT5, various Sm proteins, SUZ12, histone H2A, CTD1, LSM11, APEX1, AR, NKX3-1, CHTOP, FAM47E, and TSC22D2. Its intricate network of interactions underscores WDR77's multifaceted involvement in epigenetic modifications and regulatory pathways.

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

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