TECHNICAL DATA SHEET

Equivalent Performance, Exceptional Value

Recombinant Human WNT-7A (Carrier-free)

Catalog Number: 21-8694

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human WNT-7A (Carrier-free)

DESCRIPTION

Wnt-7a is a secreted member of the Wingless-type MMTV integration site (Wnt) family of signaling molecules that play a role in patterning, cell-cell communication and cell fate. It is expressed in placenta, kidney, testis, uterus, fetal lung and fetal and adult brain. Wnt-7a can modulate the development of the uterus, cerebellum and limbs, and signals transduced through Wnt -7a and its receptors are found to be critical for the development of oviduct and uterus in females. Wnt proteins can signal through the Frizzled family of receptors and co-receptors LRP5/6 (low-density lipoprotein-related receptor proteins 5 and 6), termed the Wnt canonical pathway.

MOLECULAR MASS

Recombinant human Wnt-7a is a 35.5 kDa glycoprotein containing 318 amino acids. Due to glycosylation, Wnt-7a migrates between 40-55 kDa by SDS-PAGE gel under unreduced conditions.

AMINO ACID SEQUENCE

LGASIICNKI PGLAPRQRAI CQSRPDAIIV IGEGSQMGLD ECQFQFRNGR WNCSALGERT VFGKELKVGS REAAFTYAII AAGVAHAITA ACTQGNLSDC GCDKEKQGQY HRDEGWKWGG CSADIRYGIG FAKVFVDARE IKQNARTLMN LHNNEAGRKI LEENMKLECK CHGVSGSCTT KTCWTTLPQF RELGYVLKDK YNEAVHVEPV RASRNKRPTF LKIKKPLSYR KPMDTDLVYI EKSPNYCEED PVTGSVGTQG RACNKTAPQA SGCDLMCCGR GYNTHQYARV WQCNCKFHWC CYVKCNTCSE RTEMYTCK

SOURCE	APPLICATIONS	PURITY	STORAGE
HEK293 cells	Bioassay	80 %	-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Chicken

BIOACTIVITY

Determined by its ability to inhibit Wnt3a induced alkaline phosphatase production in MC3T3-E1 cells. The expected ED_{50} for this effect is 40-60 ng/ml.

RESEARCH AREAS

Cancer; Inflammation; Proliferation; Stem Cells & Differentiation

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Miller C and Sassonn DA. 1998. Development. 125(16): 3201-3211. Kemp CR, Willems E, Wawrzak D, Hendrickx M, Agbor Agbor T and Lyns L. 2007. Dev Dyn. 236(7): 2011-2019. Miller JR. 2002. Genome Biol. 31(1): reviews3001-reviews3001.15.