

Conceptual Translation of Human TMEM248¹

acccggaaccgcggttgccggagcccgaactgagggcggcgggagcccggttggcgt 60
 ctggtcttcgctcgccccggagccagacgctgccccggcggggagaagatggt 120
 gcctagcgggctcggccccgccacgcccgcagtgagccagcgcgaccgcgggcg 180
 tccgccgagcagctggccccgctggccccggcgcgcgagctgcccgccggcggggtg 240 **ex1|ex2**
 gagctgatcagaataatggttcagcatcaaccctgggagaacctgaaggtgtacatcagc 300
 M F S I N P L E N L K V **Y** I S 15 **phos site, alpha helix**

agtcggcctcccctggtggtcttcatgatcagcgtaagcgccatggccatagctttcctg 360
 S R P P L V V F M I S V S A M A I A F L 35 **tm1**

acctgggctacttcttcaaaatcaaggagattaaatccccagaaatggcagaggattgg 420 **ex2|ex3**
 T L G Y F F K I K E I K S P E M A E D W 55 **highly conserved**

aatacttttctgctacggttcaatgatttggacttgtgtgtatcagagaatgaaccctc 480 **c.59del L>R**
 N T F L L R F N D L D L C V S E N E T L 75 **Beta sheet**

aagcatctcacaacgacaccacaactccggaaagtacaatgaccagcgggcagggccga 540
 K H L T **N** D T T T P E S T M T S G Q A R 95

gttccaccagtcccccaggccctggaggactcgggccccggtgaatatctcagtctca 600 **disordered**
 A S T Q S P Q A L E D S G P V **N I S V S** 115 **N-glycosylation site**

atcaccctaaccctggaccactgaaacccttcggagggtattcccgcaacgtcaccat 660
 I T L T L D P L K P F G G Y S R **N V T H** 135

ctgtactcaaccatcttagggcatcagattggactttcaggcaggggaagcccacgaggag 720 **ex3|ex4**
 L Y S T I L G H Q I G L S G R E A H E E 155

ataaacatcaccttaccctgcctacagcgtggagctcagatgactgcgccctccaggt 780
 I N I T F T L P T A W S S D D C A L H G 175

cactgtgagcaggtggtattcacagcctgcatgacctcacggccagcctgggggtgttc 840
 H C E Q V V F T A C M T L T A S P G V F 195 **tm2**

cccgtcactgtacagccaccgactgtgttctgacacgtacagcaacgccacgctctgg 900 **ex4|ex5**
 P V T V Q P P H C V P D T Y S N A T L W 215

tacaagatcttcacaactgccagagatgccaacacaaaatagcccaagattacaatcct 960
 Y K I F T **T A R D** A N T K Y A Q D Y N P 235 **ubiquitylation site**

ttctggtgttataaggggccattggaaaagtctatcatgctttaaattccaagcttaca 1020
 F W C Y **K** G A I G **K** V Y H A L N P K L T 255 **tm3**

gtgattgttcagatgatgaccgttcattaataaatttgcattctcatgcacaccagttac 1080 **ex5|ex6**
 V I V P D D D R S L I N L H L M H T S Y 275 **tm4**

ttctctttgtgatggtgataacaatgttttgctatgctgttatcaagggcagacctagc 1140
 F L F V M V I T M F C Y A V I K G R P S 295

aaattgcgctcagagcaatcctgaatgttcccgagaaagggtggctttggctgaagcctaa 1200 **ex6|ex7**
 K L R Q **S** N P E F C P E K V A L A E A * 314

ttccacagctcctgttttttgagagagactgagagaaccataatccttgctgctgaac 1260
 ccagcctgggcctggatgctctgtgaatacatatcttgcgatgttgggttattccagcc 1320

¹ Translated NP_060464.1 mRNA sequence using Six-Frame Translation tool at Bioline [https://www.bioline.com/media/calculator/01_13.html]

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aaagacatttcaagtgctgtaactgatttgtacatatttataaaaatctattcagaaat 1380
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tgctttacagataaaaacatctgaattta 4229

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miR-651-3p binding site
polyAsig, polyAsite

virus homology region

polyAsig, polyAsite

Figure 13: Conceptual translation of *Homo sapiens* TMEM248 to the predicted polypeptide sequence.