

A

Extracellular

TM1

TM2

Cytoplasmic

Legend:

- MTSES effect (Cys mutant)
- Selectivity change
- Current at pH 7.4 (Cys mutant)
- No current (Cys mutant)
- N-glycosylation
- Hydrophobic residue

B

Human

Naked mole-rat

Green anole

Chicken

Zebrafish

TM1

TM2

Human	60	ACLKNVFSVLLIFTIYLLLMVAVFVYETIDF	92
Naked mole-rat	60	ACLKNVFSVLLIFTIYLLLMVAVFVYQTIDF	92
Green anole	48	SLCKNVFSVLLIFTIYLLMVAIFLVYQTIADF	80
Chicken	60	TCLKNVFSVILLFIYLLLMVAVFVYQTSISDF	92
Zebrafish	61	ACLNKVFVTIVLVIYLTAVAVFLAYQTISDF	93
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<div style="text-align: center; border: 1px solid black; padding: 2px;">TM2</div>			
Human	297	DIVTANFNITVLGAELEKAEEF	323
Naked mole-rat	297	DIITANPNWNTIALLCGAFLALFKASEF	323
Green anole	285	DIITANPNWNIALLCGVFLALFKAAEF	311
Chicken	297	DIITANPNWNTIALLCGIFLALFKAAEF	323
Zebrafish	298	DIVTANPNWNTIALLCGVFMALFKAAEF	324
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