Complex Syndromes Caused by Defects in Essential, Highly Conserved Genes

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Description:

The invention is based on the discovery of various new IFT particle polypeptides and the genes that encode them.

In general, the invention features, an isolated nucleic acid molecule selected from the group consisting of: a) a nucleic acid molecule having a nucleotide sequence which is at least 90% identical to the nucleotide sequence of Chlamydomonas intraflagellar transport (IFT) particle protein gene 20, 27, 46, 52, 57, 72, 88, 122, 139, or Che-2, or a complement thereof; b) a nucleic acid molecule comprising at least 15 nucleotide residues and having a nucleotide sequence identical to at least 15 consecutive nucleotide residues of the nucleotide sequence of Chlamydomonas IFT particle protein gene 20, 27, 46, 52, 57, 72, 88, 122, 139, or Che-2, or a complement thereof; c) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of Chlamydomonas IFT particle protein 20, 27, 46, 52, 57, 72, 88, 122, 139, or Che-2; or d) a nucleic acid molecule which encodes a polypeptide comprising at least 10 amino acids and having an amino acid sequence identical to at least 10 consecutive amino acids of the amino acid sequence of Chlamydomonas IFT particle protein 20, 27, 46, 52, 57, 72, 88, 122, 139, or Che-2.

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