```
Mouse            --MKPGFSPRGGGFGGRGGFGDR--GGRGGGRGG-RGGFGGG-RGGFGGGGRG------- 47
Rat              --MKPGFSPRGGGFGGRGGFGDR--GGRGGGRGG-RGGFGGG-RGGFGGGGRG------- 47
Man              --MKPGFSPRGGGFGGRGGFGDR--GGRGG-----RGGFGGG-RG-RGGGFRG------- 42
Drosophila       -MGKPGFSPRGGGGGGGGGGGF--RGRGGGGGGGGGFGGG-RGRGGGGDRGGR-GGFG 55
Caenorhabditis   -MGRPEFNRGGGGGGFRGGRGGDRGGSRGGFGGGGRGGYGGGDRGSFGGGDRGGFRGGRG 59
Saccharomyces    MSFRPG-SRGGSRGGSRGGFGGR-GGSRGGARGGSRGGFGGR------GGSRGG------ 46
                    :*  .  *.  *  ** *.    .***      **:**       ** **

Mouse            -------RGGGGGG----FRGRGGGGGRGGG-FQSGGNRGRG-GGRGGKRGNQSGKNVMV 94
Rat              -------RGGGGGG----FRGRGGGGGRGGG-FQSGGGRGRG-GGRGGKRGNQSGKNVMV 94
Man              -------RGRGGGG----GGGGGGGGGRGGGGFHSGGNRGR---GRGGKRGNQSGKNVMV 88
Drosophila       GGRGGGGRGGGGGGGRGAFGGRGGGGGRGGG-GRGGGGRGGG-GRGGGAGGFKGGKTVTI 113
Caenorhabditis   GGDRGGFRGGRGGGDRGGFGGRGSPRGGFGGRGSPRGGRGSPRGGRGGAGGMRGGKTVVV 119
Saccharomyces    ------ARGGSRGG----FGGRGGSRGGARG-----GSRGGR---GGAAGGARGGAKVVI 88
                          **   **      * *.  *   *     *.**      *.  * :.* .* :

Mouse            EPHRHEGVFICRGKEDALVTKNLVPGESVYGEKRVSISEGDD-------KIEYRAWNPFR 147
Rat              EPHRHEGVFICRGKEDALVTKNLVPGESVYGEKRVSISEGDD-------KIEYRAWNPFR 147
Man              EPHRHEGVFICRGKEDALVTKNLVPGESVYGEKRVSISEGDD-------KIEYRAWNPFR 141
Drosophila       EPHRHEGVFIARGKEDALVTRNFVPGSEVYGEKRISVETNGE-------KIEYRVWNPFR 166
Caenorhabditis   EPHRLGGVFIVKGKEDALATKNMVVGESVYGEKRVSVDDGAG-------SIEYRVWNPFR 172
Saccharomyces    EPHRHAGVYIARGKEDLLVTKNMAPGESVYGEKRISVEEPSKEDGVPPTKVEYRVWNPFR 148
                 ****  **:* :**** *.*:*:. *..******:*:.          .:***.*****

Mouse            SKLAAAILGGVDQIHIKPGAKVLYLGAASGTTVSHVSDIVGPDGLVYAVEFSHRSGRDLI 207
Rat              SKLAAAILGGVDQIHIKPGAKVLYLGAASGTTVSHVSDIVGPDGLVYAVEFSHRSGRDLI 207
Man              SKLAAAILGGVDQIHIKPGAKVLYLGAASGTTVSHVSDIVGPDGLVYAVEFSHRSGRDLI 201
Drosophila       SKLAAAVLGGVEQIHMPPGSKVLYLGAASGTTVSHVSDVVGPEGLVYAVEFSHRSGRDLI 226
Caenorhabditis   SKLAASIMGGLENTHIKPGTKLLYLGAASGTTVSHCSDVVGPEGIVYAVEFSHRSGRDLL 232
Saccharomyces    SKLAAGIMGGLDELFIAPGKKVLYLGAASGTSVSHVSDVVGPEGVVYAVEFSHRPGRELI 208
                 *****.::**::: .: ** *:*********:*** **:***:*:*********.**:*:

Mouse            NLAKKRTNIIPVIEDARHPHKYRMLIAMVDVIFADVAQPDQTRIVALNAHTFLRNGGHFV 267
Rat              NLAKKRTNIIPVIEDARHPHKYRMLIAMVDVIFADVAQPDQTRIVALNAHTFLRNGGHFV 267
Man              NLAKKRTNIIPVIEDARHPHKYRMLIAMVDVIFADVAQPDQTRIVALNAHTFLRNGGHFV 261
Drosophila       NVAKKRTNIIPIIEDARHPHKYRMLVGMVDTIFADVAQPDQGRIVALNAQHFLKNGGHFV 286
Caenorhabditis   GVAKKRPNVVPIVEDARHPHKYRMLVGMVDVIFSDVAQPDQARIVALNAQNFLRNGGHAV 292
Saccharomyces    SMAKKRPNIIPIIEDARHPQKYRMLIGMVDCVFADVAQPDQARIIALNSHMFLKDQGGVV 268
                 .:****.*::*::******:*****:.*** :*:******* **:***:: **:: *  *

Mouse            ISIKANCIDSTASAEAVFASEVKKMQQENMKPQEQLTLEPYERDHAVVVGVYRPPPKVKN 327
Rat              ISIKANCIDSTASAEAVFASEVKKMQQENMKPQEQLTLEPYERDHAVVVGVYRPPPKAKN 327
Man              ISIKANCIDSTASAEAVFASEVKKMQQENMKPQEQLTLEPYERDHAVVVGVYRPPPKVKN 321
Drosophila       ISIKASCIDSTAQPEAVFAAEVKKMQADKLKPQEQLTLEPYERDHAVVVGVYRPPPKQ-- 344
Caenorhabditis   ISIKANCIDSTAEPEAVFAGEVNKLKEEKFKPLEQVTLEPYERDHAVVVAVYRPVKGKKV 352
Saccharomyces    ISIKANCIDSTVDAETVFAREVQKLREERIKPLEQLTLEPYERDHCIVVGRYMRSGLKK- 327
                 *****.*****...*:*** **:*:: :.:** **:*********.:**. *
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Alignment of fibrillarin/Nop1p sequences from multiple species. As is obvious the molecule is extremely highly conserved, particularly in the fibrillarin domain, which spans from amino acid 88 to 315 in the human sequence. *Drosophila* refers to the sequence from *D. melanogaster, Caenorhabditis* that from *C. elegans* and *Saccharomyces* is from *S. cerevisiae*. Sequences were downloaded from the Homologene site at the NIH. EnCor's antibody MCA-38F3 was originally raised by the yeast *S. cerevisiae* protein but has been found to bind a conserved epitope found on all fibrillarin/Nop1p family members tested to date.