## Supplementary Material

## Human Naa50 displays broad substrate specificity for N-terminal acetylation: Detailed Structural and Biochemical Analysis Using Peptide Library

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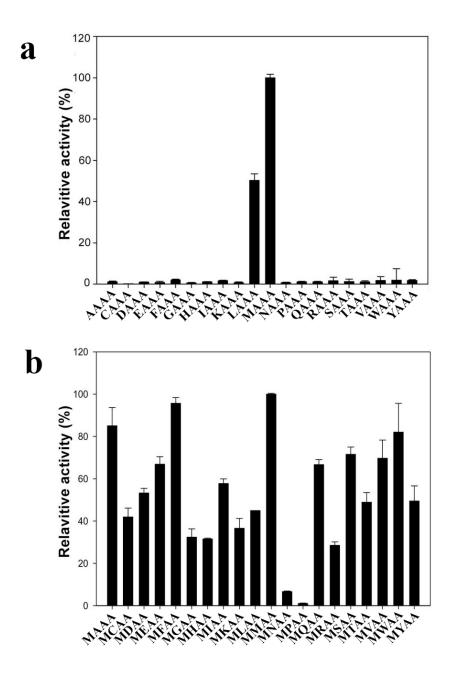
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## **Included Supplementary Material**

- Supplementary Table S1: The list of primers used to test the transcription profile of all 10 genes of six Nat complexes. GAPDH primers were used as control.
- 2. Supplementary Figure S1: Relative N-acetyl transferase activity of NAA50 against forty synthetic tetrapeptides. a) Activity against XAAA series where a high selectivity is observed for MAAA followed by LAAA peptides. Results are represented in percentage activity with respect to MAAA as standard because of its maximal activity. b) The MXAA series of synthetic peptides were tested against NAA50 for activity. MMAA peptides was used as reference (100% activity).

**Table S1.** The list of primers used to test the expression profile of all 10 N-acetyl transferasesand GAPDH primers.

Gene	Primer sequences	Uniprot accession number
NAA10	GCCATCGAGAACAAGGTGGA AGGCTCTAGGAGGCTGAGTC	P41227
NAA20	TTACCTGCGACGACCTGTTC GGTGCCTCTGCAACAATGA	P61599
NAA30	CCGAGCTACAAATGCCCGATA CACCTACACACTCCTCCCCTA	Q147X3
NAA40	CTAGGCCTTGTTCCTCTTCCAG AGGTCAGAGGGACCAACAGA	Q86UY6
NAA50	TCCAGTCAGCTACAATGACAAGT CCTTCGGTAAGGTGCCAGAC	Q9GZZ1
NAA60	ATCGAGTACCCAGACTCATGG TGTGTCAACAGAGAAGTTGGATG	Q9H7X0
NAA15	TGTGTGTTGGGCACGTTTATGG CGTTTCCCTGTAACCCTCAAGA	Q9BXJ9
NAA25	TCCTGCTGAAGGTGAACACTC TTGACTTCGTAAACGCCTAATCA	Q14CX7
NAA35	GTGACCACGGGAGAAGCATA CTTGGGTAATGTCCACCCAGT	Q5VZE5
NAA38	GCATTCGCATGACAGATGGAC CGACGGCTTGAGGAACTCC	Q9BRA0
GAPDH	CAAGGTCATCCATGACAACTTTG GTCCACCACCCTGTTGCTGTAG	P04406



**Supplementary Figure S1:** Relative N-acetyl transferase activity of NAA50 against forty synthetic tetrapeptides. a) Activity against XAAA series where a high selectivity is observed for MAAA followed by LAAA peptides. Results are represented in percentage activity with respect to MAAA as standard because of its maximal activity. b) The MXAA series of synthetic peptides were tested against NAA50 for activity. MMAA peptides was used as reference (100% activity).