

## SUPPLEMENTAL DATA

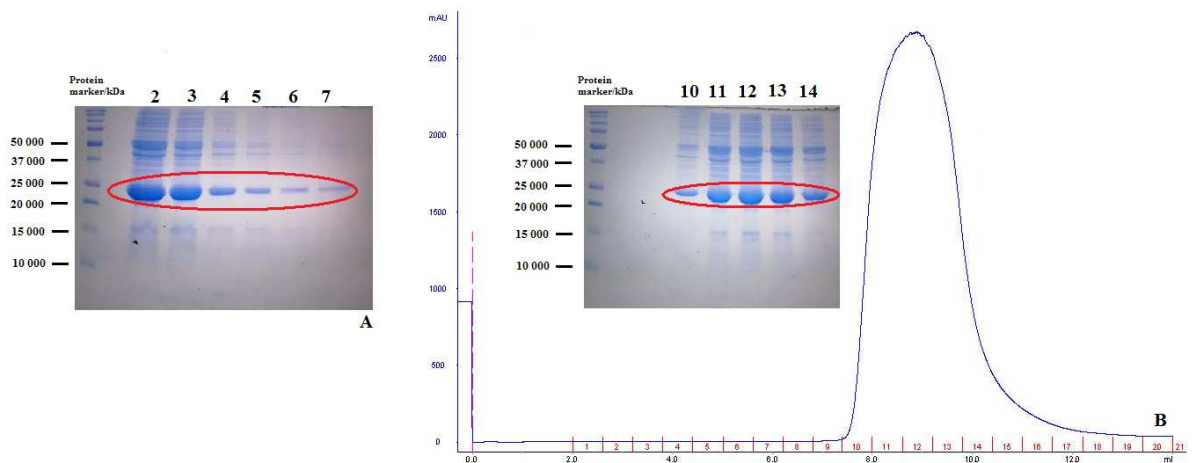


Fig. 1: Purification of the protein construct TRPM3<sub>35-124</sub>; A- SDS-PAGE of fractions 2-7 after the Chelating Sepharose chromatography; B- Chromatogram and SDS-PAGE of fractions 10-14 after the gel chromatography on Sephadex 75

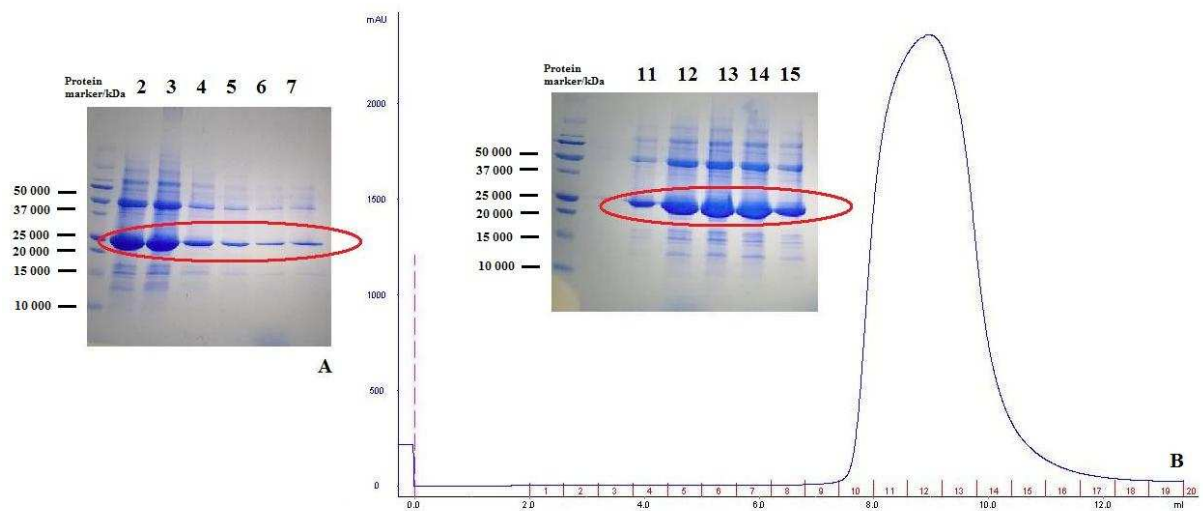
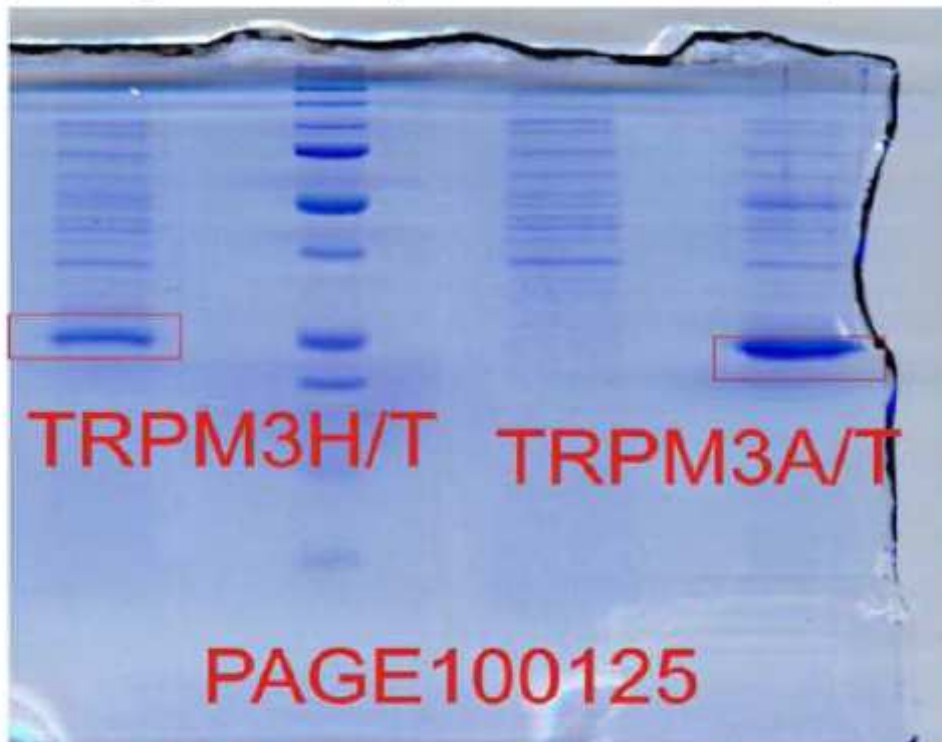


Fig. 2: Purification of the protein construct TRPM3<sub>291-382</sub>; A- SDS-PAGE of fractions 2-7 after the Chelating Sepharose chromatography; B- Chromatogram and SDS-PAGE of fractions 11-15 after the gel chromatography on Sephadex 75

| Date        | MS    | pathway  | sample name |
|-------------|-------|--|-------------|
| 28.1.2010   | Uflex | data/070413/Sulc/1433/100128Blanch_TRPM                |             |
| 02_TRPM3A_L |       | TRPM3A/T, ingel 100125, TCEP+IAA, CCA o.l. pos COff600 |             |
| 03_TRPM3H_T |       | TRPM3H/T, ingel 100125, TCEP+IAA, CCA o.l. pos COff600 |             |



**RESULT** all analyzed proteins correspond to constructs  
in all construct N-term Met is cleaved

sequence of TRPM3A-construct

1 MSDKIIHLTDDSFDTDLKADGAILVDFWAEWCGPCKMIAPILDEIADEY  
51 QGKLTVAKLNIDQNPQTAPKYGIRGIPTLLLFKNGEVAATKVGALSKGQL  
101 KEFLDANLAGSGSGHMHSHHSSGLVPRAPRPLNWTIRKLCHAAFLPSV  
151 RLLKAQKSWIERAFYKRECVHIIPSTKDPHRCCCGRLIGQHVGLTPSISV  
201 LQNEKNESRLSRNDIQSEKLEHHHHHH

sequence of TRPM3H-construct

1 MSDKIIHLTDDSFDTDLKADGAILVDFWAEWCGPCKMIAPILDEIADEY  
51 QGKLTVAKLNIDQNPQTAPKYGIRGIPTLLLFKNGEVAATKVGALSKGQL  
101 KEFLDANLAGSGSGHMHSHHSSGLVPRHFILADNGTTGKYGAEVKLRR  
151 QLEKHISLQKINTRIGQGVVVALIVEGGPNVISIVLEYLRDTPPVVVV  
201 CDGSGRASDILAFGHKYSEEGGLEHHHHHH

| 02_TRPM3A_T     |             | 03_TRPM3H_T     |             |
|-----------------|-------------|-----------------|-------------|
| m/z             | sequence    | m/z             | sequence    |
| 684.346         | 163-167     | 666.301         | 142-147     |
| 690.319         | 158-162     | 725.401         | 155-160     |
| 712.198         | 182-186     | 789.406         | 84-91       |
| 789.463         | 84-91       | 1001.639        | 75-83       |
| 899.515         | 133-139     | 1058.563        | 207-216     |
| 911.517         |             | 1267.657        | 59-70       |
| 1001.638        | 75-83       | 1554.748        | 192-206     |
| 1267.661        | 59-70       | 1568.764        | methyl      |
| 1270.672        | 141-151     | 1680.772        |             |
| 1398.759        | 140-151     | 1731.866        | 5-19        |
| 1638.856        |             | 1805.882        | 38-53       |
| 1688.845        | 168-181     | 1821.876        | ox          |
| 1731.869        | 5-19        | 1986.993        | 189-206     |
| 1805.886        | 38-53       | <b>2062.017</b> | <b>2-19</b> |
| 1821.877        | ox          | 2094.925        | 20-37       |
| 1905.032        | m187-204    | 2103            |             |
| 2033.133        | 187-205     | 2118.994        | ox          |
| 2053.059        | 131-149     | 2318.217        | 38-58       |
| <b>2062.019</b> | <b>2-19</b> | 2334.172        | ox          |
| 2069.048        | ox          | 2750.333        | 191-216     |
| 2094.93         | 20-37       | 2766.318        | ox          |
| 2519.356        | 187-209     | 2983.829        |             |
| 3024.429        | 102-129     | 3024.424        | 102-129     |
| 3040.403        | ox          | 3040.408        | ox          |

Fig. 3: MS analysis of the TRPM3<sub>35-124</sub> (TRPM3A) and TRPM3<sub>291-382</sub> (TRPM3H) protein constructs