Supplemental data 1

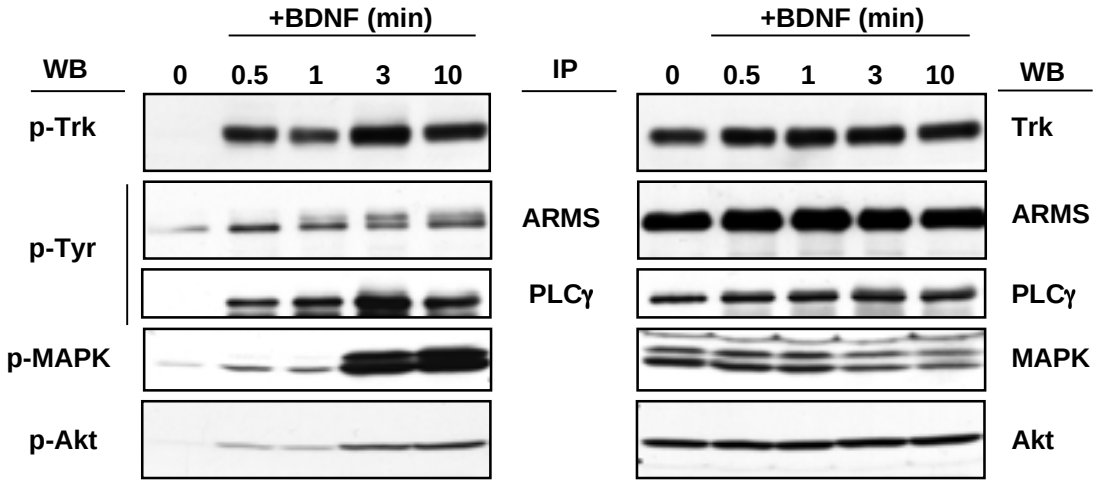

Figure S1. Phosphorylation time course of TrkB, ARMS, PLC-γ, MAPK and Akt proteins upon BDNF treatment in primary cortical neurons. Cortical neurons (8-10 DIV) were starved for 4-6 hours and BDNF (50 ng/ml) were added for the indicated time (minutes). Immunoprecipitation was carried out to detect tyrosine phosphorylation of ARMS, PLC-γ and 50 µg of whole lysates were used for Trk, MAPK and Akt detection (left panel). The same blot was re-probed with Trk, ARMS, PLC-γ, MAPK and Akt antibodies to verify the amount of protein loaded in each lane (right panel).

Supplemental data 2

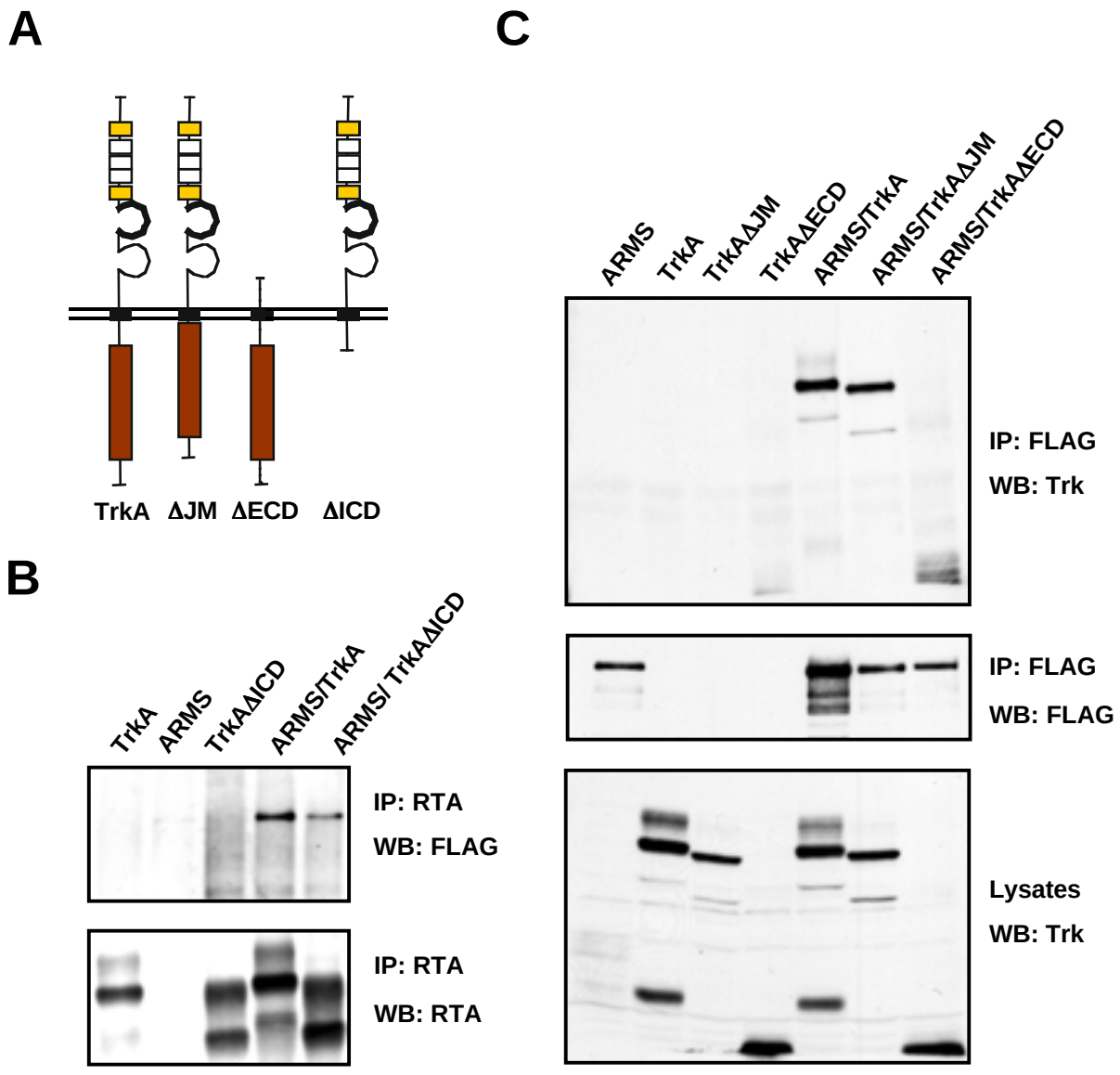

Figure S2. Deletion of extracellular, intracellular or juxtamembrane region of TrkA does not abolish the interaction with ARMS.

(A) TrkA receptor deletions. The regions deleted were the juxtamembrane (ΔJM), extracellular (ΔECD) or intracellular (ΔICD) domain .

(B) Deletion of intracellular (ΔICD) region of TrkA did not abolish association with ARMS. Anti-RTA immunoprecipitation was performed with extracts from HEK293 cells transfected with FLAG-ARMS and wild type TrkA or TrkAΔICD. The presence of ARMS was verified by Western blotting with an anti-FLAG antibody.

(C) Deletion of extracellular (ΔECD) or juxtamembrane (ΔJM) region of TrkA did not abolish association with ARMS. Anti-FLAG immunoprecipitation experiments were performed with extracts from HEK293 cells transfected with FLAG-tagged full length ARMS and wild type or truncated TrkA receptors, followed by Western blotting with an anti-Trk antisera.

Supplemental data 3

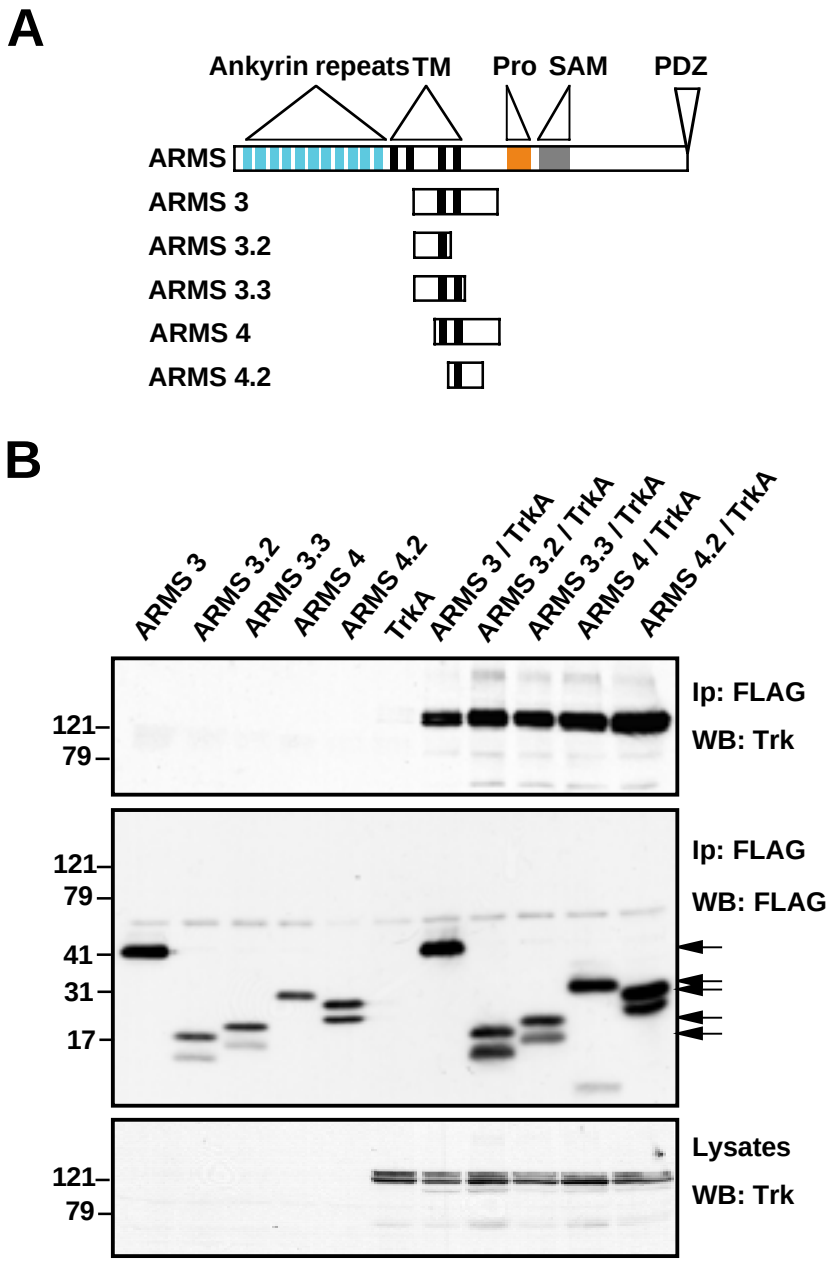

Figure S3. ARMS transmembrane domains are responsible for the interaction with Trk receptors.
(A) Deletion constructs containing 3rd and/or 4th transmembrane domains of ARMS.
(B) Transmembrane regions of ARMS are involved in the interaction with TrkA. Anti-FLAG immunoprecipitation was performed with extracts from HEK293 cells transfected with FLAG-ARMS mutants and wild type TrkA. The presence of Trk was verified by Western blotting with an anti-Trk antisera.