

## **Supplementary Data**

### **Supplementary Tables**

**Supplementary Table S1.** List of forward and reverse primers used for RT-PCR

**Supplementary Table S2.** List of phosphoproteins and peptides identified from THP-1 monocytes stimulated with IL-33 for 5, 10, 15, 30, 45, 60, 120, and 240 minutes.

**Supplementary Table S3.** List of proteins identified from THP-1 monocytes stimulated with IL-33 for 5, 10, 15, 30, 45, 60, 120, and 240 minutes.

**Supplementary Table S4.** Complete list of Reactome signaling pathways enriched for phosphoproteins upregulated in response to IL-33

### **Supplementary Figures**

**Supplementary Figure S1. A.** Western blot analysis showing the effect of IL-33 (50 ng/ml) and U0126 inhibition on the phosphorylation of NF- $\kappa$ B-p65, phosphorylated NF- $\kappa$ B-p65(S536), phosphorylated I $\kappa$ B $\alpha$  (S32/36), total ERK1/2, phosphorylated ERK1/2 (T202/Y204) between 2-240 minutes. Densitometry analysis of the Western blots for **B.** ERK1/2, phosphorylated ERK 1/2, **C.** phosphorylated I $\kappa$ B $\alpha$ , **D.** NF $\kappa$ B-p65 and phosphorylated NF $\kappa$ B-p65. The relative fold changes are shown. \*P < 0.05 compared to control (Mean  $\pm$  SEM, n = 3).

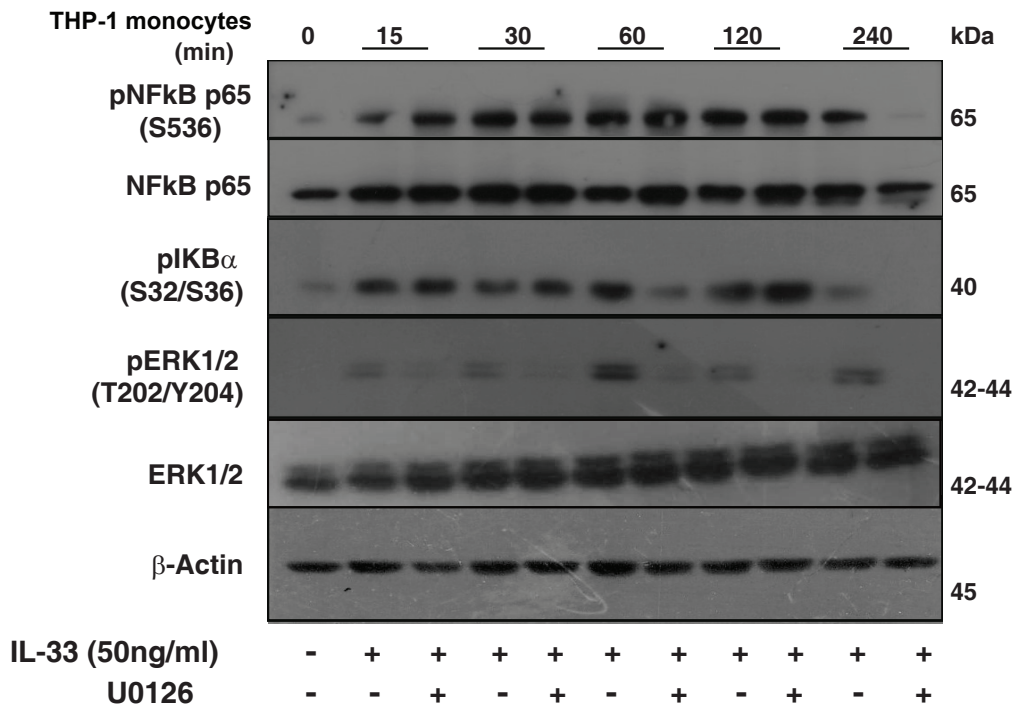
**Supplementary Figure S2. A.** Summary of IL-33-induced hyper and hypophosphorylated phosphopeptides **B.** Gene ontology analysis depicting the enriched biological processes for the IL-33-induced hypophosphorylation events. **C.** Kinase tree depicting identification of kinases in THP-1 cells upon IL-33 mediated signaling.

**Supplementary Figure S3.** Kinase-substrate networks induced by IL-33. eXpression2Kinases analysis was carried out for hyper-phosphorylated proteins induced by IL-33 in THP-1 monocytes. **A.** Protein-transcription factor networks induced by IL-33. **B.** Network of kinases, and transcriptional factors enriched in hyper-phosphorylated data set in IL-33-stimulated THP-1 monocytes.

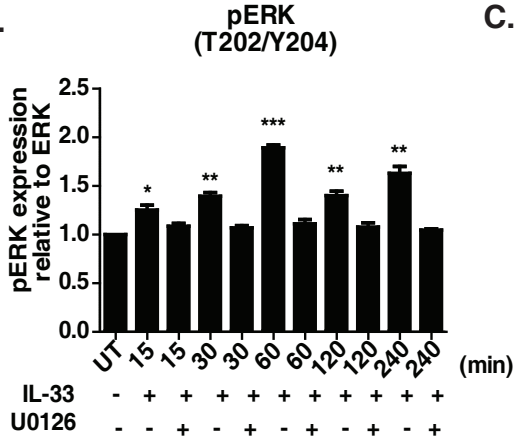
**Supplementary Figure S4.** Temporal changes in phosphosites on proteins belonging to the DNA damage sensing and activation pathway in response to IL-33. **A.** NBN (NBS1), **B.** MRE11, **C.** RAD50, **D.** pDDX41, **E.** ATM, **F.** ATR, **G.** IFI16, **H.** XRCC5 (Ku80), **I.** XRCC6 (Ku70), **J.** CARD9, and **K.** IRF3

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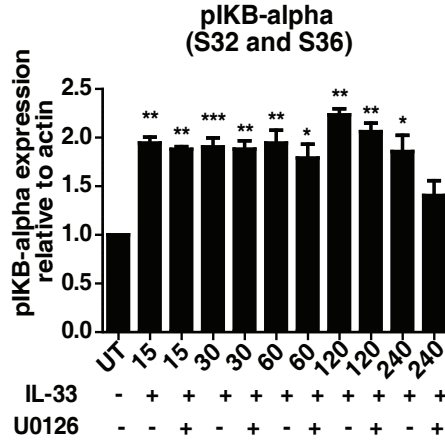
Supplementary  
Figure S1



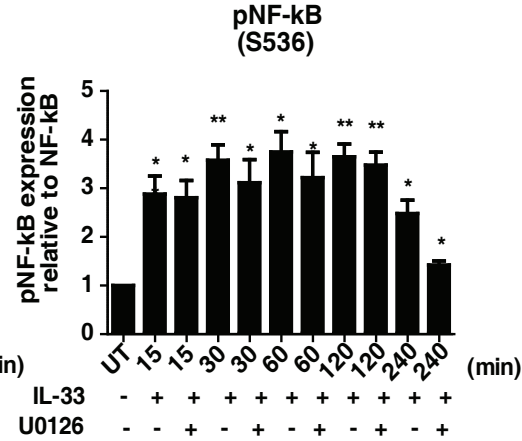
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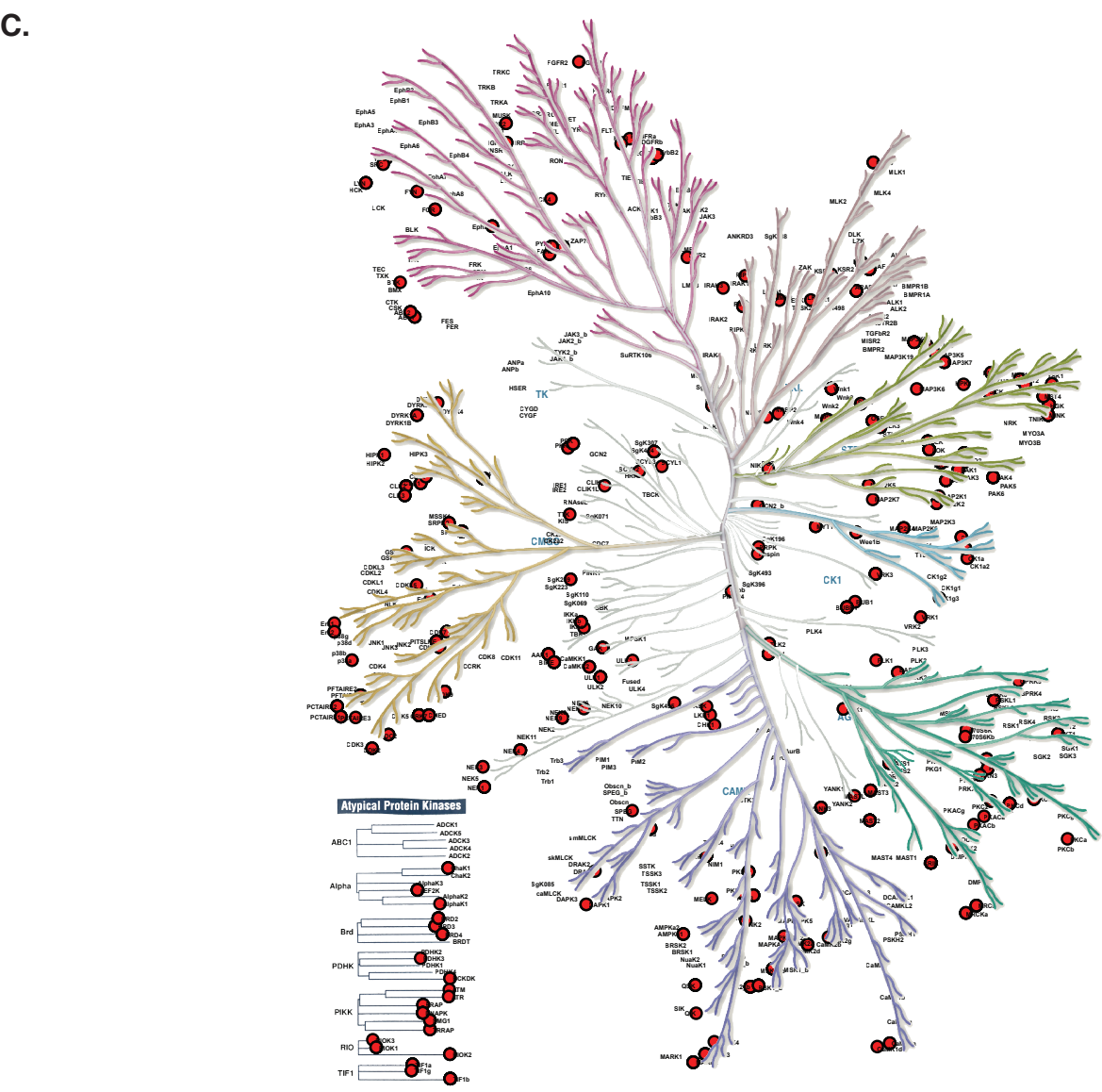
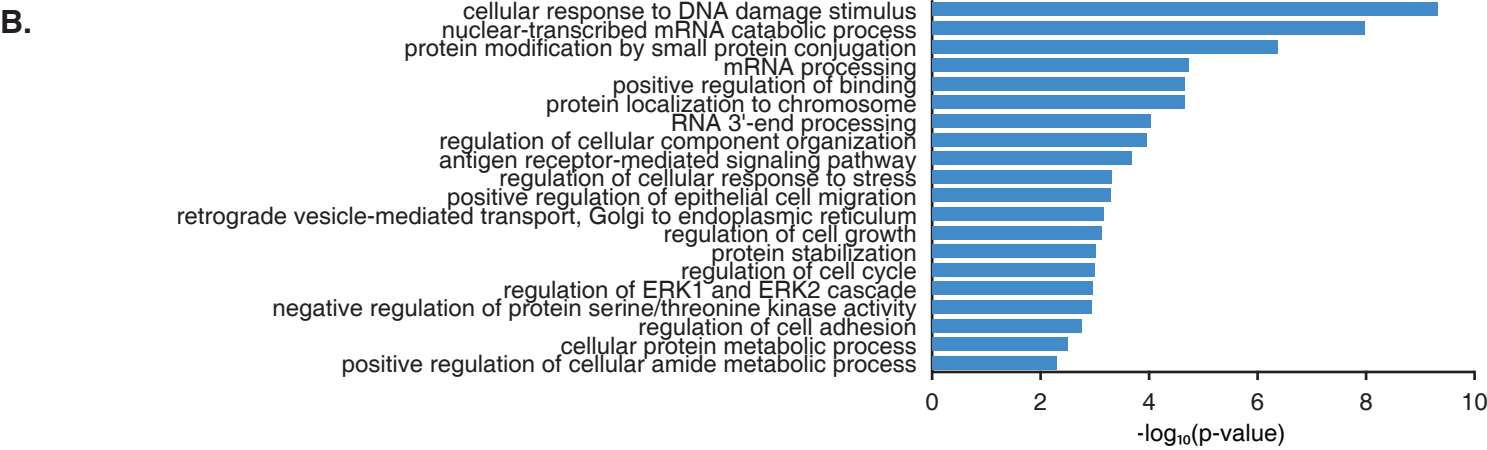
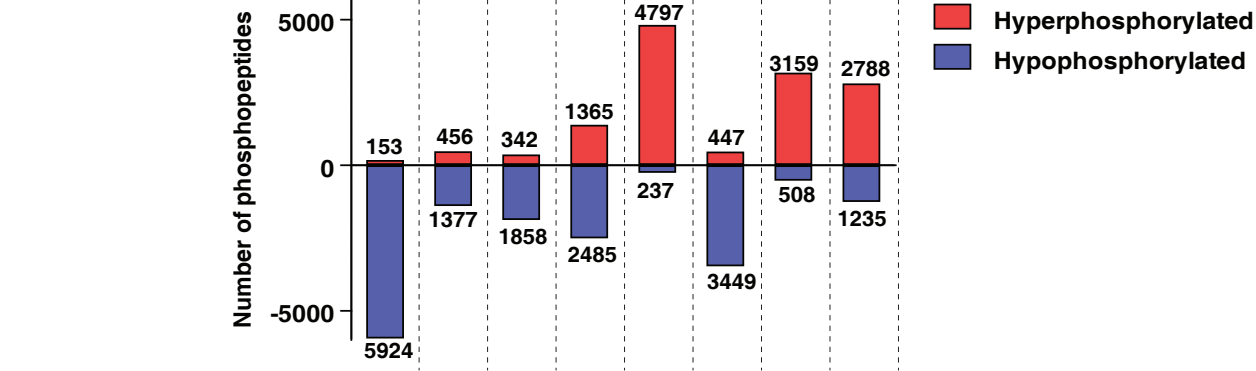


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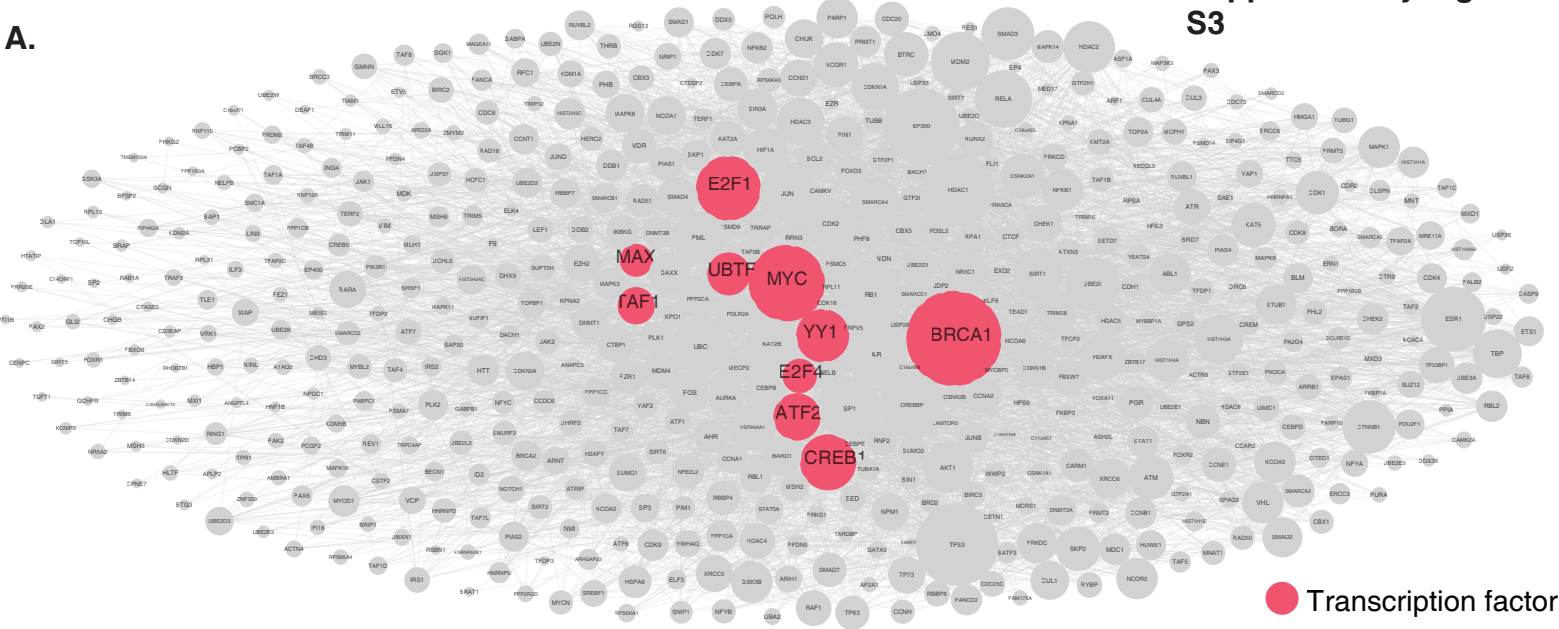


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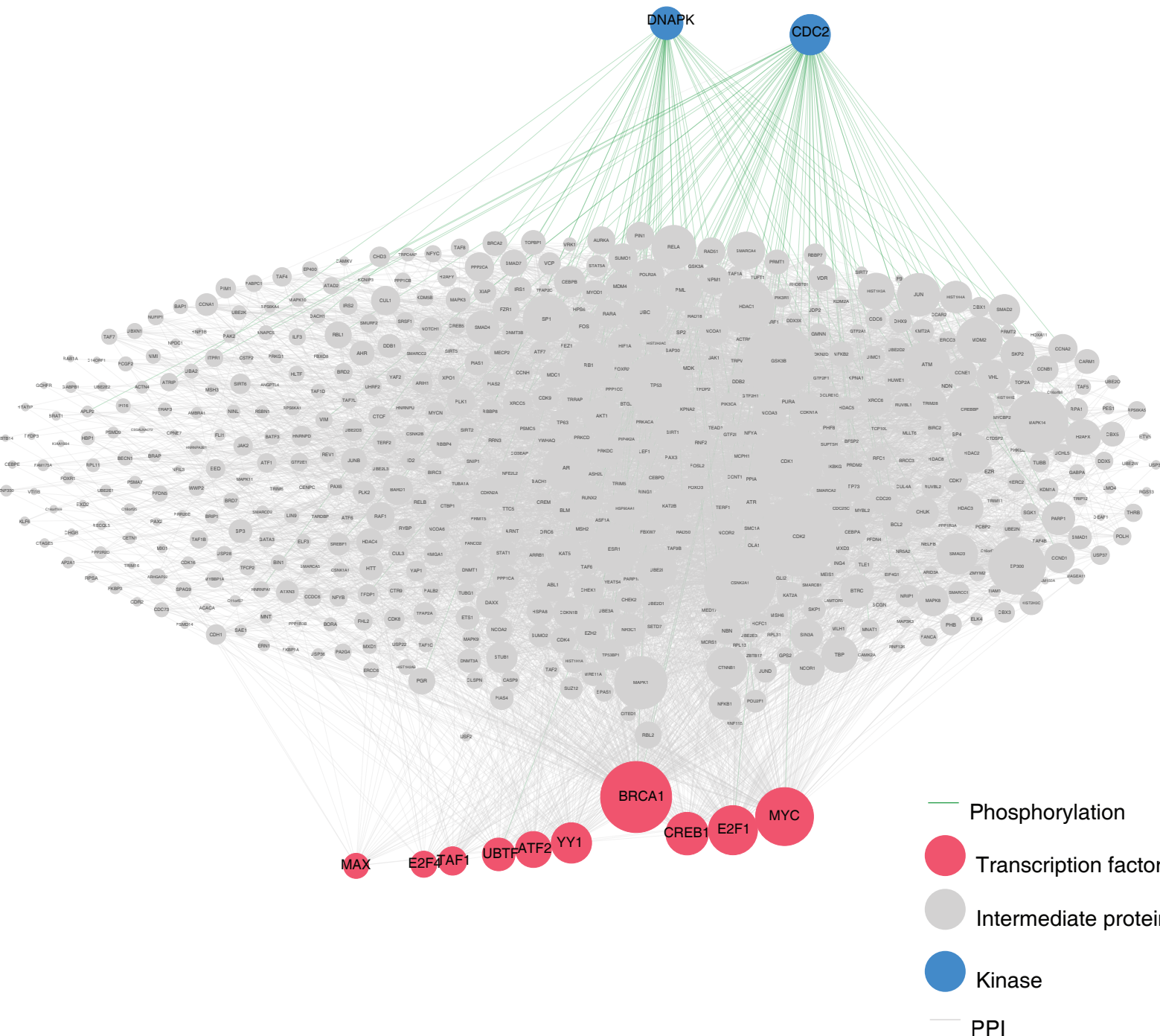




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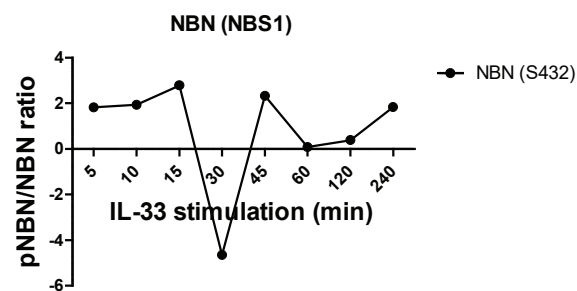


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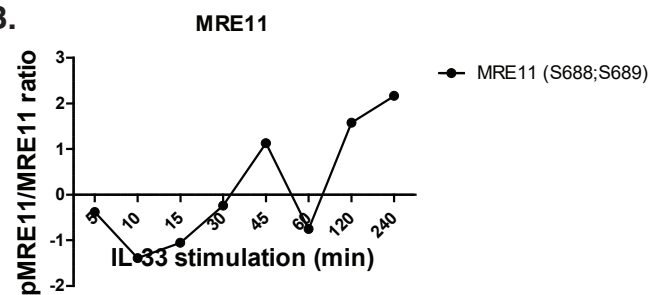




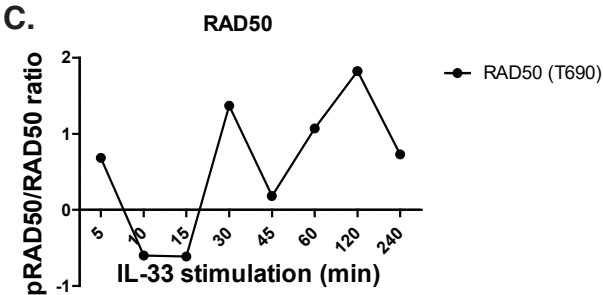
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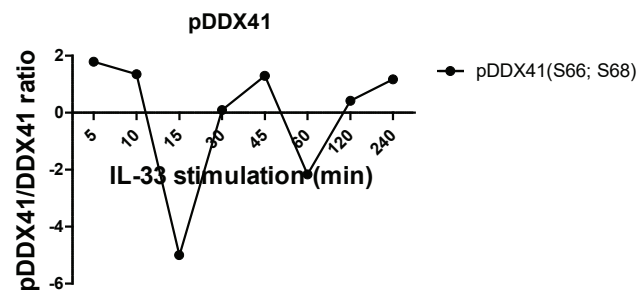
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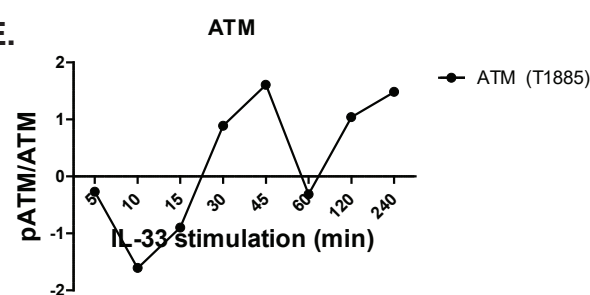
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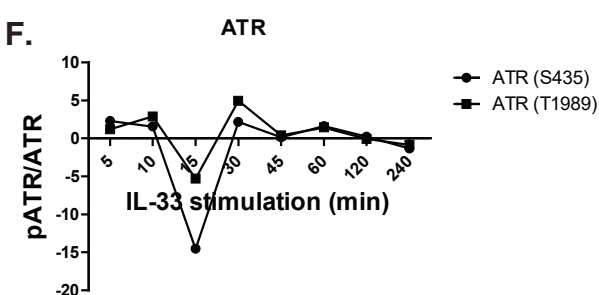
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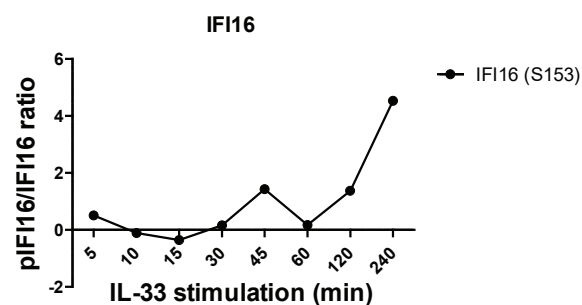
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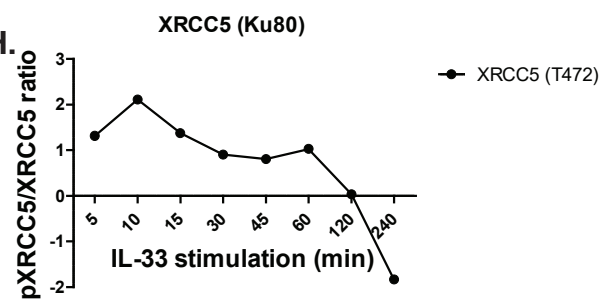
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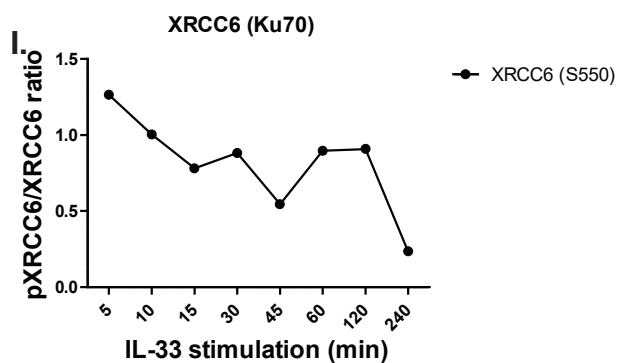
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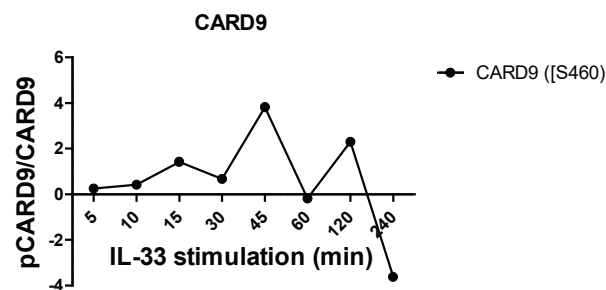
H.



I.



J.



K.

