

**Supplementary Figure 1. GTPase activity of Recombinant His-tagged Ndk from *P. gingivalis* ATCC 33277.** GTPase activity of rNdk was assessed using a GTPase activity kit (Innova Biosciences). Bovine serum albumin was used as a negative control for GTPase activity. Bar represents the Mean +/- SD

Protein Threshold: 99.9% | Min # Peptides: 5 | Peptide Threshold: 0%

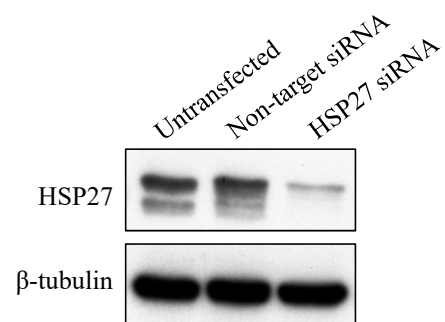
Display Options: Total Unique Peptide Count | Req Mods: No Filter | Search:

**Probability Legend:**  
 over 95%  
 80% to 94%  
 50% to 79%  
 20% to 49%  
 0% to 19%

**Bio View:**  
 14 Proteins in 11 Clusters

#	Visible?	Starred?	Accession Number	Molecular Weight	Protein Grouping Ambiguity	1	2	3	bsa
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cluster of Tax_Id=9606 Gene_Symbol=KRT1 Keratin, type II cytoskeletal 1 (IP... IPI:IPI0022...	?	★	43	32	43	
1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT1 Keratin, type II cytoskeletal 1 IPI:IPI0022...	?	★	28	17	27	
1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT2 Keratin, type II cytoskeletal 2 epidermal IPI:IPI0002...	?	★	18	18	19	
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cluster of Tax_Id=9606 Gene_Symbol=KRT10 Keratin, type I cytoskeletal 10 (L... IPI:IPI0000...	?	★	21	19	24	
2.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT10 Keratin, type I cytoskeletal 10 IPI:IPI0000...	?	★	21	19	21	
2.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT14 Keratin, type I cytoskeletal 14 IPI:IPI0038...	?	★			6	
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT9 Keratin, type I cytoskeletal 9 IPI:IPI0001...	?	★	14	12	20	
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cluster of Tax_Id=9606 Gene_Symbol=ANXA8L2;ANXA8L1;ANXA8 cDNA FLJ5631... IPI:IPI0087...	?	★	17			
4.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=ANXA8L2;ANXA8L1;ANXA8 cDNA FLJ56319, highl... IPI:IPI0087...	?	★	15			
4.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=- cDNA FLJ54151, moderately similar to Annexi... IPI:IPI0091...	?	★	12			
5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=CBR1 Carbonyl reductase [NADPH] 1 IPI:IPI0029...	?			10		
6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Serum albumin IPI01028455	69 kDa	★				27
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=HSPB1 Heat shock protein beta-1 IPI:IPI0002...	?				12	
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=HRNR Hornerin IPI:IPI0039...	?			6	5	
9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=KRT5 Keratin, type II cytoskeletal 5 IPI:IPI0000...	?	★	9	7	6	
10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tax_Id=9606 Gene_Symbol=ANXA3 Annexin A3 IPI:IPI0002...	?		9			
11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Uncharacterized protein IPI00708398	70 kDa	★				26

**Supplementary Figure 2. Identification of HSP27 (HSPB1) as an interactor with *P. gingivalis* Ndk using LC-MS/MS.** Mass Spectrometry Data Analysis using Scaffold Proteome Software showing results representing 95% or higher specificity and over 99.9% threshold of detection, at a setting of no less than 5 matching peptides for each detected protein. Data analysis revealed several peptide hits for cytoskeletal/structural molecules and a metabolic enzyme, however we focused our investigations on HSPB1 (highlighted in blue), more commonly called HSP27 as an important host signaling and stress response molecule.



**Supplementary Figure 3. HSP27 downregulated by specific siRNA in primary GECs.** Western blot confirmation of decreased HSP27 (58% reduction as determined by NIH Image J analysis) in primary GECs after transfection with HSP27 siRNA [100nM]. Non-target siRNA [100nM] had no effect on HSP27.

## Supplementary Figure Legends

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**Supplementary Figure 3.** HSP27 downregulated by specific siRNA in primary GECs. Western blot confirmation of decreased HSP27 (58% reduction as determined by NIH Image J analysis) in primary GECs after transfection with HSP27 siRNA [100nM]. Non-target siRNA [100nM] had no effect on HSP27.