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Supplemental information

Blood expression of NADK2 as a diagnostic biomarker for sciatica

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Table S1 The logFC and pvalue of inter differentially expressed genes in GSE124272 and GSE150408.

gene_symbol	GSE150408		GSE124272	
	logFC	pvalue	logFC	pvalue
lnc-IFNG-3	0.39	0.04	0.75	0.01
NADK2	0.83	0.00	0.34	0.03
TAS2R14	0.54	0.03	0.36	0.04
DUSP26	-0.63	0.01	-0.94	0.00
ZNF185	-0.32	0.04	-0.63	0.00
lnc-PHOX2B-2	-0.49	0.04	-0.67	0.01
XLOC_l2_015121	-0.56	0.02	-0.82	0.01
LOC101927636	-0.72	0.04	-1.33	0.01
PBX1	-0.48	0.04	-0.96	0.02
RGS18	-0.36	0.01	-0.43	0.04

Table S2. The LASSO coefficients in the combined dataset of GSE124272 and GSE150408

variable	λ (min)
(Intercept)	-1.5595345
lnc-IFNG-3	0
NADK2	0.31693557
TAS2R14	0
DUSP26	0
ZNF185	0
lnc-PHOX2B-2	0
XLOC_l2_015121	0
LOC101927636	0
PBX1	0
RGS18	0

Table S3. The LASSO coefficients in the 200 clinical cases

variable	λ (min)
(Intercept)	11.1198894
sex	0
age	0
BMI	0
smoking	0
osteoarthritis pain	0
NADK2-actin	-1.314276

Table S4. The GSEA results in GSE124272 using differentially expressed genes stratified by NADK2 expression

Pathway	setSize	enrichmentScore	NES	pvalue	p.adjust	qvalue
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Aminoacyl-tRNA biosynthesis	25	0.65	1.93	0.000	0.003	0.003
N-Glycan biosynthesis	53	0.56	2.00	0.000	0.001	0.001
ATP-dependent chromatin remodeling	88	0.44	1.69	0.001	0.014	0.011
Protein processing in endoplasmic reticulum	162	0.34	1.47	0.005	0.040	0.032
Herpes simplex virus 1 infection	488	0.31	1.49	0.000	0.001	0.001
Olfactory transduction	396	-0.32	-1.48	0.000	0.003	0.003

Table S5. The GSEA results in GSE150408 using differentially expressed genes stratified by NADK2 expression

Pathway	setSize	enrichmentScore	NES	pvalue	p.adjust	qvalue
Aminoacyl-tRNA biosynthesis	25	0.64	1.93	0.000	0.006	0.005
N-Glycan biosynthesis	53	0.51	1.83	0.000	0.007	0.006
ATP-dependent chromatin remodeling	88	0.41	1.65	0.001	0.020	0.017
Protein processing in endoplasmic reticulum	162	0.38	1.67	0.000	0.005	0.004
Herpes simplex virus 1 infection	488	0.35	1.69	0.000	0.000	0.000
Olfactory transduction	396	-0.37	-1.83	0.000	0.000	0.000

Table S6. The GSEA results in GSE124272 & GSE150408 using differentially expressed genes stratified by NADK2 expression

Pathway	setSize	enrichmentScore	NES	pvalue	p.adjust	qvalue
Aminoacyl-tRNA biosynthesis	25	0.71	2.18	0.000	0.000	0.000
N-Glycan biosynthesis	53	0.57	2.06	0.000	0.000	0.000
ATP-dependent chromatin remodeling	88	0.53	2.09	0.000	0.000	0.000
Protein processing in endoplasmic reticulum	162	0.43	1.84	0.000	0.000	0.000
Herpes simplex virus 1 infection	488	0.38	1.86	0.000	0.000	0.000
Olfactory transduction	396	-0.39	-1.93	0.000	0.000	0.000