

Supplemental Data

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Human Mutations in the Nuclear Distribution E

Homolog 1 Cause Extreme Microcephaly

with Lissencephaly (Microlissencephaly)

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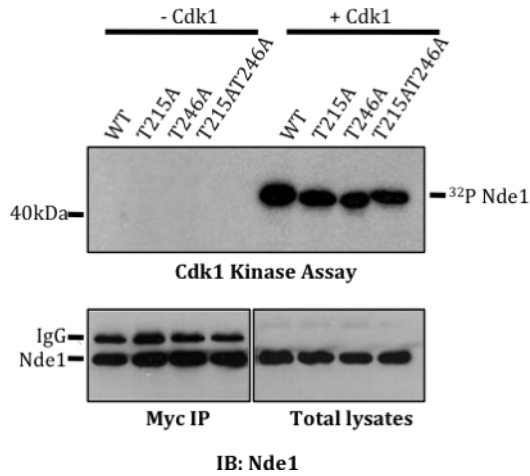


Figure S1. Kinase Assay of Myc-Nde1 by Cdk1/Cyclin B

Wild-type Myc-Nde1 and three phospho-deficient mutants (T215A, T246A, T215AT246A) were transiently expressed in 293T cells and immunoprecipitated with anti-Myc antibody. Immuno-purified Myc-Nde1 proteins were subjected to kinase assay with recombinant Cdk1 and cyclin B. ^{32}P signals at the approximate molecular weight of Nde1 protein were detectable in all four conditions, but were significantly reduced in T215A, T246A, T215AT246A phospho-deficient mutants compared to the wild-type.

Table S1. Sequencing Primers Used in the Identification of Human *NDE1* Mutations in Microlissencephaly Patients

EXON	FORWARD	REVERSE
E2	TTTTCTGTAAAGGGGATCAGC	AGGAAAAGCAGGTGAACTCG
E3	GAGACTCTGTCTTCAAAAATATTAC	CATGCCATGCCTGTGTTG
E4	TGCTACTGTGTCTAGCCTTCTCA	GAGTCTCCCACTCGTGCTTT
E5	GTCTGACCCTTCGCACCTC	GAGCTTGTGGGACAAGATGT
E6	GCCTGGCTGAGGACTTGAAT	ACCCACCCAGATTCTTACC
E7	GCGATGTAAACGCACAGACA	AGATCAACCCCTTCACACA
E8	TGTACAGGCTCTGGTAAGACAGA	CTGGGGGTGAGTGTCTCTTG
E9	AGCCACGCGTCATACTCTG	AGGAGATCGAGAACCTCACC

Table S2. Microcephaly Collaborative Members

Member	Institution
Abdulsalam Abu-Libdeh	Makassed Islamic Charitable Hospital, Jerusalem, Israel
Dianne Abuelo	Rhode Island Hospital, USA
Lesley Ades	The Children's Hospital at Westmead, Australia
Sirpa Ala-Mello	Helsinki University Central Hospital, Finland
Sadika A. Al-Awadi	Kuwait Medical Genetics Centre, Kuwait
Lihadh Al-Gazali	United Arab Emirates University, United Arab Emirates
Isphana Al Khatib	Al Noor Training Centre for Children with Special Needs, United Arab Emirates
Kerry Baldwin Jedele	Gundersen Lutheran Medical Center, USA
A. James Barkovich	University of California, San Francisco, USA
Lina Basel-Vanagaite	Rabin Medical Center, Israel
Laila Bastaki	Kuwait Medical Genetics Centre, Kuwait
Tawfeg Ben-Omran	Weill Cornell Medical College, Hamad Medical Corporation, Qatar
Habiba Chaabouni	Charles Nicolle Hospital, Tunisia
Azhar Daoud	Jordan University of Science and Technology, King Abdullah University Hospital, Jordan
Stefano D'Arrigo	Fondazione IRCCS Istituto Neurologico Carlo Besta, Italy
Adre J. du Plessis	Children's National Medical Center, USA
William B. Dobyns	Seattle Children's Research Institute, University of Washington, USA
Wafaa Eyaid	King Fahad National Guard Hospital, Kingdom of Saudi Arabia
Art Grix	Kaiser Permanente, USA
Mary Haddadin	Quest Diagnostics, USA
Fuki M. Hisama	University of Washington, USA
Mira Irons	Children's Hospital Boston, USA
James Irvine	University of Saskatchewan, Canada
Rachel Kelleher	Rhode Island Hospital, USA
Samir Khalil	Makassed Islamic Charitable Hospital, Al-Quds University, Jerusalem, Israel
Virginia Kimonis	University of California Irvine School of Medicine, USA
Edwin Kolodny	New York University School of Medicine, USA
Edmond Lemire	Royal University Hospital, University of Saskatchewan, Canada
Dorit Lev	Wolfson Medical Center, Israel
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Jennifer Lewis	Foundation for Children with Microcephaly, USA
Amira Masri	Jordan University Hospital, The University of Jordan, Jordan
Ozgur Oner	Dr Sami Ulus Children's Hospital, Turkey
Ignacio Pascual- Castroviejo	University Hospital La Paz, Spain
Annapurna Poduri	Brain Development and Genetics Clinic, Children's

Anna Rajab	Hospital Boston, USA
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Lucy B. Rorke-Adams	Assaf Harofeh Medical Center, Israel
Ayesha Saeed Husaini	Children's Hospital of Philadelphia, USA
	Manzil Centre for Challenged Individuals, United Arab Emirates
Mustafa A. M. Salih	King Khalid University Hospital, King Saud University, Kingdom of Saudi Arabia
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Swati Sathe	New York University School of Medicine, USA
Ingrid Scheffer	Austin Hospital, Australia
Consolato Sergi	University of Alberta Hospital, Canada; Medical University of Innsbruck, Austria
Ruthie Shenhav	Rabin Medical Center, Israel
Elliott Sherr	University of California at San Francisco, USA
Janet Soul	Children's Hospital Boston, USA
Joan Stoler	Children's Hospital Boston, USA
Rachel Straussberg	Tel Aviv University, Israel
	University of Szeged, Hungary
Ahmad Teebi	Weill Cornell Medical College, Hamad Medical Corporation, Qatar
Meral Topcu	Hacettepe University Faculty of Medicine, Turkey