

SUPPLEMENTAL DATA

SUPPLEMENTAL TABLE I. Antibodies used in this study.

Bold letters indicate antibodies used for immunoblots in Figs 3, 4.

| <i>Target</i> | <i>Accession number</i> | <i>Antibody</i>                                     | <i>Epitope mapping or peptide/recombinant protein sequence segment</i> | <i>Source</i> |
|---------------|-------------------------|---|--|---------------|
| Nup153        | NM_005124               | MAB (PF190x7A8)                                     | <b>aa 493-611</b>  | (1)           |
| Tpr           | U69668.1                | MAB (203-37)  | <b>aa 1370-1623</b>  | (2)           |
| Nup93         | NM_014669               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 586-606</b>  | (3)           |
|               |                         |   | aa 371-389   |               |
| Nup96         | AAL56659                | $\alpha$ -peptide polyclonal antibodies             | aa 130-146   | (3)           |
|               |                         |   | aa 574-596   |               |
|               |                         |   | <b>aa 880-900</b>  |               |
| Nup98         | AAL56659                | $\alpha$ -peptide polyclonal antibodies             | aa 206-219   | (3)           |
|               |                         |   | <b>aa 596-618</b>  |               |
| RanBP2        | NM_006267               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 2180-2211</b>  | (4)           |
|               |                         |   | aa 2553-2828   | (5)           |
| Nup107        | NM_020401               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 33-51</b>  | (3)           |
|               |                         |   | aa 437-926   | (6)           |
| Nup205        | XM_371954               | $\alpha$ -peptide polyclonal antibodies             | aa 51-65   | this study    |
|               |                         |   | <b>aa 1783-1802</b>  | (3)           |
| Nup214        | NM_005085               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 2075-2090</b>  | R. Kehlenbach |
| Nup133        | NM_018230               | $\alpha$ -full length protein polyclonal antibodies | <b>#759-71 not mapped</b>  | (6)           |
|               |                         |   | #756-63 not mapped   |               |
| Nup160        | XP_113678               | $\alpha$ -peptide polyclonal antibodies             | aa 1059-1554   | J. Koeser     |
| Nup188        | XM_497078               | $\alpha$ -peptide polyclonal antibodies             | aa 8-259   | J. Koeser     |
|               |                         |   | <b>aa 1519-1747</b>  |               |
| Nup155        | NP_705618               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 33-58</b>  | this study    |
|               |                         |   | aa 719-739   |               |
| Nup75         | AF514995                | $\alpha$ -full length protein polyclonal antibodies | <b>not mapped</b>  | J. Koeser     |
| Nup50         | CAG30419                | $\alpha$ -peptide polyclonal antibodies             | <b>aa 1-21</b>   | (3)           |
|               |                         |   | <b>aa 126-147</b>  |               |
|               |                         |   | <b>aa 1-21 + 126-147 + 193-215</b>                                     | this study    |
| Nup88         | NM_002532               | $\alpha$ -peptide monoclonal antibodies             | <b>aa 314-425</b>  | BD Bioscience |
| Nup62         | NM_153719               | $\alpha$ -peptide polyclonal antibodies             | aa 175-187   | this study    |
|               |                         |   | <b>aa 510-522</b>  |               |
| Nup54         | NM_017426               | $\alpha$ -peptide polyclonal antibodies             | aa 310-323   | this study    |
| Nup58         | AL646102                | $\alpha$ -peptide polyclonal antibodies             | <b>aa 224-247</b>  | this study    |
| Nup35         | NP_612142               | $\alpha$ -peptide polyclonal antibodies             | aa 1-29  | this study    |
|               |                         |   | <b>aa 143-166</b>  |               |
| Nup37         | NP_076962               | $\alpha$ -peptide polyclonal antibodies             | <b>aa 76-95</b>  | this study    |

|        |           |   |                     |             |
|--------|-----------|---|---------------------|-------------|
| Nup43  | AAM76708  | $\alpha$ -peptide polyclonal antibodies | <b>aa 365-380</b>   | this study  |
| Seh1   | NP_112493 | $\alpha$ -peptide polyclonal antibodies | <b>aa 342-360</b>   | this study  |
| Sec13  | NP_109598 | $\alpha$ -peptide polyclonal antibodies | <b>not mapped</b>   | (7)         |
| Aladin | NP_056480 | $\alpha$ -peptide polyclonal antibodies | <b>aa 24-45</b>     | this study  |
| CG1    | NP_031368 | $\alpha$ -peptide polyclonal antibodies | aa 37-59            | this study  |
|        |           |   | <b>aa 66-94</b>     |             |
| gp210  | NP_079199 | $\alpha$ -peptide polyclonal antibodies | <b>aa 1871-1887</b> | this study  |
| POM121 | Q9Y2N3    | $\alpha$ -peptide polyclonal antibodies | <b>aa 141-153</b>   | this study  |
|        |           |   | <b>aa 347-368</b>   |             |
|        |           |   | <b>aa 1204-1226</b> |             |
|        |           |   | <b>aa 448-650</b>   | D. Goerlich |

## SUPPLEMENTAL RESULTS

*NPC cleavage is mediated by caspases in TRAIL- and etoposide-induced apoptosis.* To confirm that in TRAIL- and etoposide-induced apoptosis cleavage of individual nucleoporins is a caspase-mediated event, we made use of the pan-caspase inhibitor z-VAD-fmk. This inhibitor efficiently protected the cells both from TRAIL and etoposide-induced cell death and abolished nucleoporin cleavage. CA-074, an inhibitor of the unrelated cysteine protease cathepsin B had no or only little effect (Supplemental Fig. 1A, C). Surprisingly, in etoposide-treated cells cleavage of Nup214 was sensitive to CA-074, however this may be due to the intrinsically low level of cleavage of this protein in apoptosis. Already a small decrease in the abundance of the Nup214 fragment might drop the corresponding signal below the detection limit of the immunoblot.

## LEGENDS TO SUPPLEMENTAL FIGURES

SUPPL. FIG.1 Nucleoporin proteolysis is mediated by caspases in TRAIL- and etoposide-induced apoptosis. Apoptosis was induced in HeLa cells by treatment with 300 ng/ml TRAIL for 3 h (A, B) or with 50  $\mu$ M etoposide after synchronization in S-phase for 12 h (C, D) in the presence and absence of different protease inhibitors. (A, C) Whole cell extracts from control (co) and treated HeLa cells were immunoblotted with antibodies specific for the indicated nucleoporins. (B, D) The extent of apoptosis was assessed by cell staining with Hoechst-33342 and scoring for condensed nuclei. Data are means  $\pm$  standard deviation from triplicate determinations.

## SUPPLEMENTAL REFERENCES

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SUPPLEMENTAL FIG.1

