## **SUPPLEMENT 1A**



#### SUPPLEMENT 1A : COX-2 levels in untreated cell lines.

Western blot analysis of the endogenous COX-2 levels in untreated cell lines. GAPDH served as a loading control. The experiments were repeated three times.

# **SUPPLEMENT 1B**

# Saos-2

- 1 control
- 2 DpC 5 μM
- 3 DpC 20 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM





# <u>Daoy</u>

- 1 control
- 2 DpC 5 μM
- 3 DpC 10 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM







# <u>SH-SY5Y</u>

- 1 control
- $2 DpC 5 \mu M$
- 3 DpC 20 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



## SUPPLEMENT 1B: COX-2 levels after the treatment with thiosemicarbazones.

Western blot analysis of the COX-2 levels in Saos-2, Daoy and SH-SY5Y cells after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.

### **SUPPLEMENT 2A**



#### SUPPLEMENT 2A: NDRG1 levels in untreated cell lines.

Western blot analysis of the endogenous NDRG1 levels in untreated cell lines. GAPDH served as a loading control. The experiment was performed in biological triplicate.

## **SUPPLEMENT 2B**



1 - Saos-2:control $2 - Saos-2: DpC 20 \mu M$  $3 - Saos-2: Dp44mT 20 \mu M$ 4 - Daoy: control $5 - Daoy: DpC 10 \mu M$  $6 - Daoy: Dp44mT 20 \mu M$ 7 - SH-SY5Y: control $8 - SH-SY5Y: DpC 20 \mu M$  $9 - SH-SY5Y: Dp44mT 20 \mu M$ 

#### SUPPLEMENT 2B: NDRG1 levels after the treatment with thiosemicarbazones.

Western blot analysis of the NDRG1 levels in Saos-2 cells, Daoy and SH-SY5Y cells after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.

# **SUPPLEMENT 3**

<u>Saos-2</u>	control CX DpC Dp44mT DpC+CX Dp44mT+CX	<u>Daoy</u>	control CX DpC Dp44mT DpC+CX Dp44mT+CX
<b>Ехр. 1</b> p-АКТ		<b>Ехр. 1</b> р-АКТ	
AKT		AKT	
GAPDH		GAPDH	
Exp. 2		Fxn. 2	•
n-AKT			
ρ-Ακτ		ρ-Ακτ	
АКТ		АКТ	
GAPDH		GAPDH	
Exp. 3		Evn 3	
- n-ΔKT		<b>слр. Э</b> n_AKT	
		ρ-Ακτ	
АКТ		АКТ	
GAPDH		GAPDH	

# **SUPPLEMENT 3**

<u>SH-SY5Y</u>	ontrol CX DpC Dp44mT DpC+CX Dp44mT+CX
Exp. 1	001111
р-АКТ	
АКТ	
GAPDH	
Exp. 2	
р-АКТ	
АКТ	
GAPDH	
<b>Ехр. 3</b> р-АКТ	
АКТ	
GAPDH	

## SUPPLEMENT 3: p-AKT and AKT levels after 2 h of the treatment with the IC50 doses of CX, DpC, Dp44mT and their combinations.

Western blot analysis of the phospho-AKT (p-AKT) and AKT levels in Saos-2, Daoy and SH-SY5Y cells after 2 h of incubation with the IC50 doses of CX, DpC, Dp44mT, DpC+CX or Dp44mT+CX. GAPDH served as a loading control. The experiments were performed in biological triplicates.

## **SUPPLEMENT 4A**



## SUPPLEMENT 4A: MGMT levels in untreated cell lines.

Western blot analysis of the endogenous MGMT levels in untreated cell lines. GAPDH served as a loading control. The experiments were repeated three times.

# **SUPPLEMENT 4B**

# Saos-2

- 1 control
- 2 DpC 5 μM
- 3 DpC 20 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



# <u>Daoy</u>

- 1 control
- 2 DpC 5 μM
- 3 DpC 10 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



# <u>SH-SY5Y</u>

- 1 control
- $2 DpC 5 \ \mu M$
- 3 DpC 20 μM
- $4 Dp44mT 5 \ \mu M$
- 5 Dp44mT 20 μM



## SUPPLEMENT 4B: MGMT levels after the treatment with thiosemicarbazones.

Western blot analysis of the MGMT levels in Saos-2, Daoy and SH-SY5Y cells after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.

### **SUPPLEMENT 5A**



#### SUPPLEMENT 5A: Levels of the mismatch repair proteins in untreated cell lines.

Western blot analysis of the endogenous MLH1, MSH2 and MSH6 levels in untreated cell lines. GAPDH served as a loading control. The experiment was performed in biological triplicates.

## **SUPPLEMENT 5B**



#### SUPPLEMENT 5B: MLH1 levels after the treatment with thiosemicarbazones

Western blot analysis of the MLH1 levels in Saos-2, Daoy and SH-SY5Y cells after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.

## **SUPPLEMENT 5C**





# SUPPLEMENT 5C: MSH2 and MSH6 levels after the treatment with thiosemicarbazones.

Western blot analysis of MSH2 and MSH6 levels in Saos-2, Daoy and SH-SY5Y cell lines after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.

# **SUPPLEMENT 6A**



## SUPPLEMENT 6A : TOP2 $\alpha$ levels in untreated cell lines.

Western blot analysis of the endogenous TOP2 $\alpha$  levels in untreated cell lines. GAPDH served as a loading control. The experiments were repeated three times.

## **SUPPLEMENT 6B**

# Saos-2

- 1 control
- 2 DpC 5 μM
- 3 DpC 20 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



4 5

# <u>Daoy</u>

- 1 control
- 2 DpC 5 μM
- 3 DpC 10 μM
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



# <u>SH-SY5Y</u>

- 1 control
- 2 DpC 5 μM
- $3 DpC 20 \ \mu M$
- 4 Dp44mT 5 μM
- 5 Dp44mT 20 μM



# SUPPLEMENT 6B: TOP2 $\alpha$ levels after the treatment with thiosemicarbazones.

Western blot analysis of the TOP2 $\alpha$  levels in Saos-2, Daoy and SH-SY5Y cells after 24 h of incubation with DpC or Dp44mT. GAPDH served as a loading control. The experiments were repeated three times.